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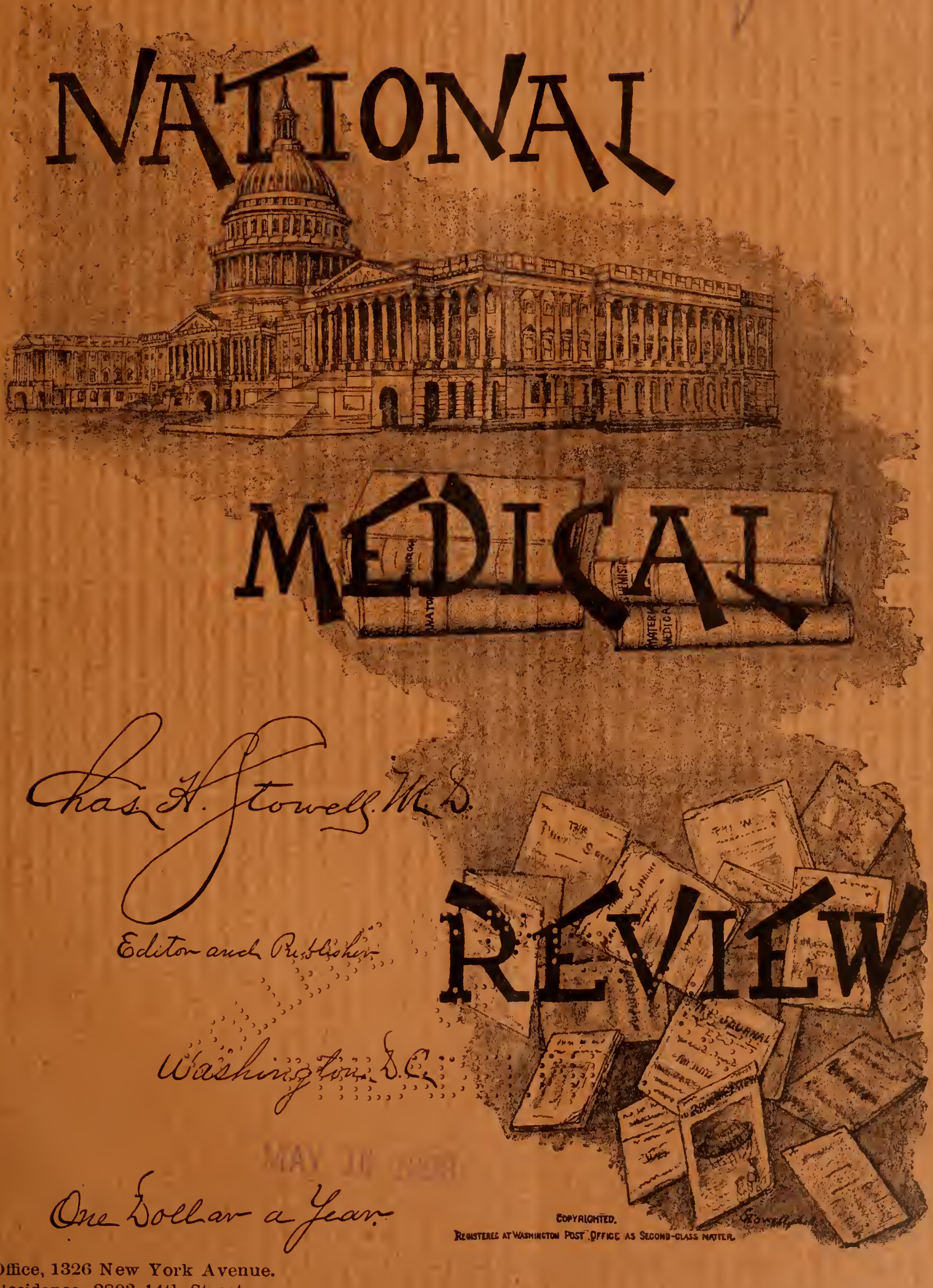
Vol. V.
A Monthly Journal

MARCH, 1896.

No. 1.
For the Busy Practitioner.

THE NATIONAL MEDICAL REVIEW



Chas. H. Stowell, M.D.
Editor and Publisher

Washington, D.C.

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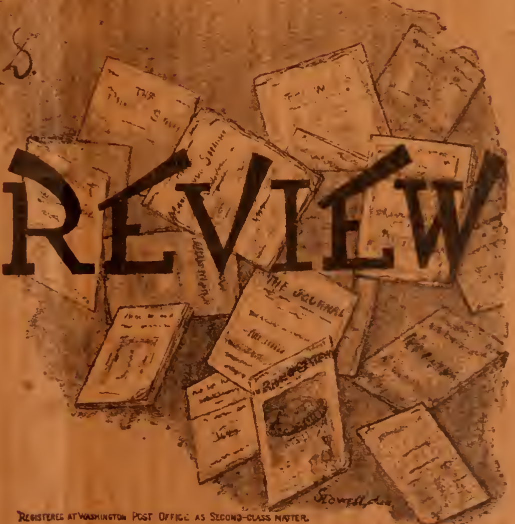

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THE
NATIONAL MEDICAL REVIEW.

VOL. V. WASHINGTON, D. C., MARCH, 1896. NO. 1
CHAS. H. STOWELL, M. D., EDITOR.

THE EDITOR'S TABLE.

Aseptolin. A recent number of the Medical Record contains an article by Dr. Cyrus Edson of New York in which he gives a detailed description of his new treatment for consumption. Dr. Edson presents a very readable article and advances some strong arguments in favor of his new method of treatment. Aseptolin is a chemically pure solution of phenol and pilocarpine. Dr. Edson first thought of using phenol because it is a normal constituent of the urine in health and also because it it greatly increased in disease. It was natural therefore for him to argue that if phenol was thus greatly increased during disease, might it not be one of nature's many devices for destroying germ infection? The difficult question which Dr. Edson had to solve was that there was no solution of phenol which the system would tolerate. After some experiments however he has produced a solution which Prof. Henry C. Mott, the distinguished chemist, says is a hydrophenol with a definite amount of a new pilocarpine compound. Dr. Edson has already given over one thousand injections of his aseptolin without producing a single abscess. This new remedy is not only to be used in cases of phthisis, but also in every disease where there is germ infection. Dr. Edson has treated thirty-eight cases of malaria and in not a single case was a second injection necessary. About fifty physicians are using this remedy under the direction of Dr. Edson. We understand a physician in this city has a case of phthisis which he is treating with aseptolin.

Roentgen Rays. Our readers are already familiar with the wonderful properties of certain rays which proceed from an electric light. A number of scientific men, from all parts of the world, have verified the original announcement that the cathode rays will penetrate many opaque bodies, as flesh, and certain minerals. A Vienna professor has photographed calcareous deposits in the bladder, liver and kidneys of a live subject. This discovery has already been put to practical use in this country and surgeons have located foreign bodies by it. It is difficult even to imagine what the near future will bring forth in this line. It is certainly safe to predict that this new photography is not only bound to be one of the most interesting discoveries in a scientific way, but also of the highest practical value in medicine and surgery. A daily journal is necessary to keep posted with the advances already made since its discovery. One feels like asserting that the man with the wildest imagination may predict "the most impossible things" and yet live to see them come to pass.

No Annual Publication. By a close vote, at a recent meeting, the medical society has decided not to issue an Annual Volume of its proceedings. Two days after the president of the society recommended such a publication, we received calls from four physicians, each one asking us to protest against its adoption. One physician said he could, in two hours, bring the names of a score of physicians who were opposed to it. We also received some letters and have had interviews with a number of physicians from time to time on the subject. From all this it did not seem possible for the measure to receive even the number of votes recorded in its favor. The cost of such a publication was estimated to be about $800 annually. There is an average attendance of about ninety members. Therefore, the members figured it out that it was rather an expensive method of preserving their papers and discussions. Through the good will of the medical society we still hope to present an abstract of the discussions given before that body. We are very desirous of publishing abstracts of the papers presented also, but so far we have had great difficulty in securing them. We believe it would make these discussions more interesting and would at the same time please our readers if the authors of papers would furnish us with such abstracts. The writers of such papers can derive more good from having their work examined by the local profession then could be the case were the readers scattered throughout the United States. A notice of work in the National Medical Review is read by nearly every physician in the District of Columbia, to say nothing of the circulation outside. Did an article appear in every other medical journal in the United States but this, not one-half the number of local physicians would see it. Specialists receive their support largely from the local profession. Therefore, please send us brief abstracts of your paper read before the society, and we will publish the same in connection with the discussion.

So Soon. An exchange announces that the editor of the North American Medical Review, Dr. Samuel Lewis, has resigned. In reviewing this journal we took occasion to remark that it represented altogether too much labor for the subscription price. It is a fact which some medical publishers do not fully appreciate at first, that there is no immense excitement or keen joy in running a medical journal at a great financial loss. In these days of many journals it certainly would be some years before a publisher would have much balance on the credit side of such a journal as the above. But we did not expect a change so soon.

Volume Five. With this number begins the fifth year of the National Medical Review. We desire to make a note of the fact because we are here. Journals come and journals go, but we still grind on. Had we opened our career with a journal three or four times as large, which would have been greatly to our satisfaction, we would long ago have contributed to the enriching of the journalistic soil of this city. By referring to our index for Volume IV it is seen that over 100 physicians have been mentioned in our columns during the past year and 600 references have been made to them. The official figures of the Medical Society of this city show that there is an average attendance of ninety-four. In other words, of the members of the Medical Association of this city, about twenty-five per cent only would know what was being done in our medical society, were it not for this Journal. The publishing of the Hospital Reports has been a surprise to the local profession in the way of showing them what an immense amount of valuable work was being accomplished in our midst. There are nearly a thousand copies of the National Medical Review distributed each month in the District of Columbia. This journal may not be satisfactory to a few, but we believe we could even satisfy them, provided we had an overwhelming desire to come to the close of each year with about three thousand dollars on the wrong side of the balance sheet. Should some of our readers have a strong desire to expend this amount of money for the good of the profession, we are ready to open a correspondence with them! Otherwise the National Medical Review will plan to continue through volume five after the precedent already established.

It All Depends. The editor of the Journal asks, Is the Medical Examiner an Over-Estimated Insurance Officer? That all depends. We notice that Dr. H. L. E. Johnson has entered suit in the Circuit Court to recover fees amounting to $250 for professional services. Without knowing anything about this case we do know that Dr. Johnson is a man who believes that a physician should not sell his services to the lowest bidder. He holds that when a physician knows how to do a thing his services are worth more than are the services of one who has to "cut and try". So it is with medical examiners. A medical examiner who knows his business and is conscientious in his work is of inestimable value to his company. His medical reports are cheap at $10 an examination. But we have known medical examiners in this city to report unfavorably on a case because when heat was applied to the urine there was a cloudy appearance. The case was reported unfavorably "because of the presence of albumen," when a drop of acid would have dispelled the illusion! Who cannot tell of these egregious blunders perpetrated by incompetent medical examiners? Therefore, it all depends.

Only One Medical Society. "Why not have only One Medical Society," says a correspondent in a recent letter, referring to this city. Our reply was, "Why not have only one society in our Colleges and Universities? Why not get the Odd Fellows and the Masons to unite? or the Ancient Order of United Workmen and the Royal Arcaneum?" The many medical societies in this city stimulate activity in the parent society, while they bring together in a social and friendly way those who are most congenial. Persons take part in these societies who would not do so in the older society. Yet after slight experience they find themselves ready to take part in the discussions of the parent organization. These young and smaller societies are to be recommended and aided in every way. The more of them the better. They stimulate intellectual activity and promote a feeling of good fellowship, without either of which life would be a dull monotony.

Professional Thieves. Calling at a store a few days ago, we found the proprietor engaged in conversation. Dismissing his caller he informed us that this party was engaged by a number of men in business similar to his own. This person visited each of the stores belonging to the "protective association' and informed them of any person who had ceased trading at one store, leaving a bill unpaid, and had gone to another. Such a case was reported that morning. All members of the association then refuse to give this person goods unless cash is paid, or until the old bill is settled. Would not this be an economical and wise plan to adopt by physicians? It would reach that class who are able to pay moderate prices but will avoid doing so in every possible way. Any doctor is a wonderful man in their eyes, until he insists upon having his bills paid.

Antitoxin Figures. In 1894 the mortality of diphtheria in the city of New York was 28 per cent. In 1891–2 it was 26 per cent. This was without the use of antitoxin. In 1895 in the city of Brooklyn the mortality was 24 per cent with the use of antitoxin. This is not speaking much in favor of the serum treatment. However, the fatality has always been much larger in Brooklyn than in New York. If the figures be taken for Brooklyn alone, then the good results from antitoxin can be shown to be a reduction of the mortality from something like 35 to 24 per cent. We reproduce a table here, furnished to the Brooklyn Medical Journal by Dr. Jas. L. Kortright.

1st	Quarter,	1890,	732	cases,	295	deaths,	40	per cent.
1st	"	1891,	522	"	220	"	42	"
1st	"	1892,	559	"	253	"	45	"
1st	"	1893,	518	"	162	"	31	"
1st	"	1894,	733	"	259	"	35	"
1st	"	1895,	1149	"	282	"	24	"

It is noticed that the year 1895 had an unusually large number of diphtheria cases. Dr. Kortright says that "Possibly part of this increase may be due to improved method of diagnosis by means of which cases formally called tonsillitis are now classed tonsillar diphtheria." Accepting this possibility is simply to raise the mortality to the same average as of old. Of the 400 extra cases in '95 over those of '94, doubtless a large number would have been passed by as but little more than a sore throat or tonsillitis were it not for the bacteriological examination. The mortality of these cases cannot be anything like those which are severe enough to make a clinical diagnosis an easy matter. In 1895, in Brooklyn, there were 282 deaths from diphtheria. If this represents a fatality equal to that of the year previous, 35 per cent, then there should have been over 800 cases in all. This leaves only about 340 cases to account for under the new methods. Of these 340 cases it is not only possible but altogether probable that many of them had but slight clinical manifestations of the disease. They were cases which, as Dr. Kortright says, would formerly have been called tonsillitis. The fatality would certainly not have been high. Therefore the conclusion from the study of this table is not so highly favorable to the wonderful proprieties claimed for antitoxin by its enthusiastic advocates; although it certainly proves that the serum treatment has some value.

Life Without Bacteria. It has often been stated that bacteria is necessary for the processes of alimentation and nutrition of animals. Recently two experimenters, connected with the University of Berlin, have concluded some researches which show that the presence of bacteria is not essential so long as the food is of an animal nature. The experiments consisted in bringing up guinea pigs upon sterile food and supply them with sterile air. The animals grew and were active and healthy in every way. These observers state that they are now about to undertake the solution of the question whether the herbivora can live without the aid of bacteria in their intestines.

Dangers from Ice. Much has been written about the dangers connected with the use of ice. Instances have been reported where typhoid fever has been communicated through the use of melted ice. Some recent experiments however go to show that the old belief that freezing purified the water is, in a large measure, true. It is certainly probable that the dangers are very small from this source, provided that small pieces of ice be added to the drinking water. In the instances where disease has been communicated through the use of ice, the ice was melted and only this water used for drinking purposes. This is a far different question from the one where small pieces of ice are added to a glass of water.

South Washington Dispensary. The South Washington Dispensary was organized just before the close of '95 and was incorporated February 10, 1896. Although this dispensary has been in existence but so short a time yet we are told that nearly 300 needy patients have been treated. Whenever the circumstances of the patients permit, they are required to pay a small price for medicine. We are informed that about one-fourth of the number do this. The Dispensary is located at 517 Four-and-a-half St., s. w., and is open daily from 1 to 3 p. m. The medical staff is composed of Drs. Jos. D. Morgan, Chas. L. Allen, Geo. Barrie, Henry A. Robbins, Henry D. Fry and D. K. Shute. Each of these physicians is in attendance two afternoons a week.

Standing Committees. The President of the Medical Society has announced the following standing committees:

Essay, Drs. Smith, Pool and Woodward.
Publication, Drs. S. S. Adams, Cook and Frank Leech.
Microscopy, Drs. Lamb, Acker and Balloch.
Directory for Nurses, Drs. Adams, Barker and McLaughlin.
Legislation, Drs. Busey, W. W. Johnston, Cook, McLain, Magruder, Kleinschmidt, C. G. Stone, Sowers and Woodward.
Public Health, Drs. W. W. Johnston, Hyatt, Cass, Mayfield, D. O. Leech, J. D. Morgan and Chappell.

Death of Dr. W. E. Wolhaupter. At a special meeting of the Medical Society of this city, held January 22d, the following resolutions, on the death of Dr. William Edmund Wolhaupter, were adopted:

Whereas, it has pleased the Almighty to have removed from our midst Dr. William Edmund Wolhaupter, a member young and enthusiastic in his profession, and interested in everything that pertained to the practice of his high calling: therefore, be it—

Resolved: That we, members of the medical society, deeply deplore his untimely death and extend to his family our sincere sympathy in their deep bereavement.

Resolved: That this resolution be spread upon the minutes of the society, and that a copy be forwarded to the family of our deceased brother.

Antitoxin. The Board of Health report thirty cases of diphtheria in Berlington, N. J. Some of these were fatal. In Trenton, of twenty-one cases reported within four days, four proved fatal. This is a mortality of from 20 to 25 per cent, notwithstanding these days of antitoxin.

Dr. J. W. Brannan of New York, says that he has never seen any "melting away of the membrane in diphtheria which is not also observed in cases which have not received antitoxin. There is a case now in the wards of the hospital in which the membrane has persisted for three weeks, although antitoxin was given on the third day of the disease."

The Most Useful Drugs. A medical society recently voted on the five most useful drugs. We fancy the following list will be a surprise to our readers: "Iodide of potassium, antipyrin, liquor arsenicalis, tincture digitalis and liquor strychniæ." It will be noticed that no reference is made to either opium or calisaya bark, while antipyrin takes the place of phenacetin which is a much safer and more satisfactory product. This is indeed a strange selection.

Women as Physicians. In discussing the question of the admission of women to the Royal College of Physicians in London, Dr. Charles West said that women had practiced medicine in America for fifty years and so far as he knew they had not made a single contribution to our knowledge of medicine, not even in the subject of the diseases of children. Evidently Dr. West is not familiar with the work of one woman whose name is so steadily quoted by the advocates of women in the profession. What would we all do without Dr. Mary Putman Jacobi!

Bold Surgery. Dr. Herbert L. Burrell of Boston, reports a case of ligation of the innominate artery. This operation has been performed only twenty-eight times prior to Dr. Burrell's case. The surgeon found that the artery was about one and a quarter inches in circumference. As the ligature was drawn about the vessel, the coats were felt to give way. The first ligature was applied only three quarters of an inch from the aorta. The patient lived until the morning of the 104th day, when he died very quickly. The operation lasted an hour and a half, and the patient recovered from it with but little shock, although he had an enlarged heart, and was suffering from general arterio-sclerosis.

Short Men and Fat. "A man named Clark, who advertised to make short people tall and fat ones thin, has recently disappeared from his Twenty-third Street office, presumably returning to London, whence he came, and many short men find themselves even shorter than before meeting him while the fat ones are at least not putting on much flesh, while they can no longer laugh. When he promised the short ones they would grow, he probably meant to grow wise by experience, which process they are now going through, while he is spending the fees paid in advance."—Medical Record. It will be a long time before we will get a better short story than this.

Cure for Hiccough. A writer to the Journal, from this city, gives his method for curing hiccough, which is as follows: "Immediately after the paroxysm of hiccough, close the mouth and inflate the lungs to their utmost capacity by breathing the air in through the nose; then hold the breath as long as possible; when finally compelled to expel the air from the lungs we do so and to our astonishment find that we are no longer troubled with hiccough." The interesting thing about this to us is that we were taught this very method when a small boy and it was always tried by our playmates. Although we have known it to fail many times, yet it is one of the most simple and successful cures.

A Sure Cure. The next time you go to a banquet, notice how many men are afflicted with gasterectasis and gastrimargia. Strange to say, a positive cure for these maladies is simply to put the person down for a reply to a toast!

Dr. Simonton of San Jose, Cal., says that fifteen per cent of the cattle in California have tuberculosis.

Dr. J. F. Scott reports another case of hydrothionuria, or the phenomenon of sulphuretted-hydrogen gas in the urine. This makes the fifth case which occurred in his service in Columbia Hospital.

COMMUNICATION.

JUDGE MILLER AND THE HEALTH ORDINANCE.

It seems strange that a man of Judge Miller's intelligence could not give a little more of his valuable time to the case of Health Office vs. Parker. I, for one, watched the outcome of this case with a great deal of interest. Not that I wished to see Dr. Parker punished but I wished to see the laws of the health office upheld by the courts of the District of Columbia. The very fact of the Klebs-Lœffler bacillus being present and the house placarded by the health department, should have been a sufficient reason why Dr. Parker should have refrained from certifying as he did, thereby running the risk of infecting other school children. He well knew the case had been reported by his predecessor, and also found to be one of diphtheria by the health department. Under these circumstances he certainly violated section three of the health ordinance, part of which reads, "And it shall be the duty of physicians while in attendance upon cases of scarlet fever or diphtheria to exercise such reasonable precautions to prevent the spread of said diseases, etc."

This was not one of those regular every day five minute cases, where the prosecuting attorney says: "A case of drunk." The defendant answers "guilty," and the Judge remarks, "thirty days. Next!" but one where a very important law in the interest of the children of this city had been plainly and daringly violated.

It is just such interpretations of medical laws by intelligent judges that discourage physicians. If Judge Miller had listened less to the medical phraseology, refrained from making his serio-comic comments on medical science and given more time to the consideration of the true evidence of violation of the health ordinance in this case, (not a suspicious one, but one of diphtheria, calling for reasonable precautions on the part of the physicians to prevent the spread of the same) his opinion would have been very different and the law upheld.

Elmer Sothoron, M. D.,
1921 I Street.

We desire to call the attention of our readers to the Hospital Reports published in this number. The amount of work of a high order here represented must be a surprise to the majority.

The Medical Society of this city, interesting as it is, would be much more so did the younger members take a more active part. When a boy, we received a severe scolding from a neighbor because we had broken his harness. "Why," said he, "I have used that harness twenty-five years and never broke it." We dared not answer him that it was time the old thing was broken! Let some of the younger members tell the others that because a method has been pursued for twenty-five years it does not necessarily followed that it is the best at the present time.

A medical student, in government service, was asked by a lady what was good for certain aches and pains from which she was suffering. Some remedy was suggested and it was procured and taken. The next day the lady was in bed, and as the medical student boarded in the same house he continued his attendance. When the lady recovered she was presented with a bill of $45, which was paid. Said medical student was pursuing his studies under the professional care of a regular physician of this city. Probably one of these days he will seek admission to the medical association.

HOSPITAL REPORT. JAN. 15 TO FEB. 15.

BY J. A. STOUTENBURGH, M. D.

COLUMBIA HOSPITAL.

SERVICE OF DR. J. W. BOVEE.

Pan-hysterectomy, for fibroma uteri, pyosalpinx and double ovarian abscess.

Excision of hemorrhoids, three cases.

Curettage for endometritis, three cases.

Anterior colpotomy and double salpingo-oophorectomy, with ventral fixation, for cystic ovaries and adherent retroversion.

Anterior colpotomy and vaginal hysterectomy, for multiple fibroids and cystic ovaries.

Anterior colpotomy, with unilateral salpingo-oophorectomy and curettage, for metritis, double hydrosalpinx and cystic ovaries.

Double salpingo-oophorectomy for tubo-ovarian abscess and pyosalpinx, two cases.

Restoration of cervix for perphoration of posterior lip.

Curettage and replacement, for endometritis and retroflexion.

Curettage and perineorrhaphy.

Curettage, perineorrhaphy and trachelorrhaphy.

SERVICE OF DR. I. S. STONE.

Cauterization for carcinoma of the endometrium.

Double salpingo-oophorectomy for double pyosalpinx and degenerated ovaries.

Salpingo-oophorectomy and ventral fixation for hæmato-pyosalpinx, pyosalpinx and cystic ovaries.

Double salpingo-oophorectomy for tubo-ovarian abscess, pyosalpinx and cystic ovary.

Ventral fixation, curettage and trachelorrhaphy for adherent retroflexion, endometritis, ovaritis and lacerated cervix.

Cœliotomy, incision and drainage for multiple fibroma uteri and tubo-ovarian abscess.

Enucleation of supra-costal tumor.

Curettage, trachelorrhaphy and perineorrhaphy, two cases.

Curettage and perineorrhaphy.

Curettage and vaginal drainage for retained placenta and pelvic abscess.

Curettage for hypertrophic endometritis.

Salpingo-oophorectomy, ventral fixation, curettage and trachelorrhaphy, for cystic ovaries, retroversion, endometritis and lacerated cervix.

Exploratory colliotomy.

GARFIELD HOSPITAL.

SERVICE OF DR. J. FORD THOMPSON.

Amputation of middle finger and multiple incisions of the fore-arm for cellulitis.

Amputation at the lower third of the femur for tubercular knee joint.

Cœliotomy and drainage for tubercular peritonitis.

Cholecystolomy for gall stones.

Curettage supra orbital ridge for ostitis.

Dissection of popliteal aneurism.

Excision of breast and dissection of axilla for carcinoma.

Exploratory incision of knee joint, following excision.

Herniotomy for oblique inguinal hernia, two cases.

Internal urethrotomy.

Incision and packing anal fistulæ and psoas abscess.

Incision and curettage of suppurating femoral glands.

Incision of perineal abscess and enucleation of lipoma of thigh.

Incision and packing perineal sinus.

Incision and drainage of abscess of the liver.

Operation for varicocele.

Removal of cyst of neck at angle of jaw.

Removal of hæmatoma of tunica vaginalis.

Pan-hysterectomy for fibroma and carcinoma uteri, and broad ligament cyst.

Supra-vaginal hysterectomy for multiple fibroids.

Subcutaneous tenotomy of small toes and resection of ankle joint.

Unilateral orchidectomy and dissection of tunica vaginalis for hydrocele.

Radical cure for omental inguinal hernia.

Radical cure for hydrocele and excision of hemorrhoids.
Multiple incision of phlegmonous hand.

Service of Dr. H. D. Fry.

Curettage and trachelorrhaphy.
Perineorrhaphy, two cases.
Exploratory laparotomy.
Nephrorrhaphy for floating kidney.
Salpingo-oophorectomy, double for salpingitis and ovaritis.

Service of Dr. W. H. Wilmer.

Decission of capsule.
Enucleation for traumatic glaucoma.
Enucleation for absolute glaucoma.
Extraction of mature cataract, two cases.
Extraction of complicated cataract with Daniel's spoon.
Extraction of cataract with iridectomy.
Iridectomy for simple glaucoma.
Maturing of cataract.
Needling of soft cataract.
Paracentisis of the vitreous for absolute glaucoma.
Plastic operation for cicatricial ectropion.

Operation by Dr. Forwood.

Exploratomy laparotomy in carcinoma of the gall bladder with infiltration of liver and neighboring lymphatic glands.

Operation by Dr. J. VanRensselaer.

Appendisectomy.

Operation by Dr. J. T. Kelley.

Proctotomy for tubular fistula of rectum.

EMERGENCY HOSPITAL.

Service of Dr. Jas. Kerr

Amputation of breast for carcinoma.
Amputation of arm at middle third.
Aspiration of hip-joint abscess.
Excision of papelloma of cheek.
Excision of bursa great trochanter.
Extraction of bullet from neck.
Herniotomy for indirect, inguinal hernia.
Incision of abscess, thirteen cases.
Incision of perphoraling ulcer of great toe.
Laparotomy for gunshot wound of liver and kidney.
Necrotomy, three cases.
Operation (Schelle's) for varicose ulcer of leg.
Operation for Dupuytreris contracture.
Otis' method for tubercular glands of neck, two cases.
Removal loose cartilage from knee joint.
Suture flexor tendons of leg.
Suture flexor tendons of arm.
Suture extensor tendon of thumb.
Suture ulnar nerve.
Trephining for depressed fracture of frontal bone, two cases.
Trephining for depressed comminuted fracture of parietal bone.
Trephining for linear fracture temporal bone.
Trephining for middle meningeal hemorrhage.
Trephining for pistol-shot wound of skull.
Trephining for sub-dural clot and extravisation.
Wounds sutured, one hundred and fourteen.

Service of Dr. H. L. E. Johnson.

Incision abscess of breast.
Removal fibroid tumor of uterus.
Salpingo-oophorectomy, double for cystic ovaries, two cases.

Service of Dr. S. M. Burnett.

Extraction of cataract, two cases.
Plastic operation on lower lid.

CHILDREN'S HOSPITAL.

Service of Dr. J. Ford Thompson.

Osteotomy of tibia for rachitic deformity.
Removal enlarged cervical glands.
Removal of large blood clot followiug severe contused wound of back.

PROVIDENCE HOSPITAL.

Service of Dr. J. W. Bovee.

Curettage, trachelorrhaphy and perineorrhaphy, three cases.
Curettage and trachelorrhaphy.
Curettage and removal of suppurating fibroma uteri.

Service of Dr. J. W. Bayne.

Double oophorectomy for cystic ovaries.

FREEDMEN'S HOSPITAL.

Service of Dr. D. H. Williams.

Ventral hernia.
Amputation of fingers.

Varicocele (radical cure).
Supra-vaginal amputation of uterus and tubes for double pyosalpinx.
Excision of tonsils.
Strangulated inguinal hernia.
Multiple scalp wounds.
Encysted hydrocele of cord.
Excision of tonsils.
Arthrectomy, elbow-joint for tuberculosis.
Diffused phlegmon of scalp.
Incision and drainage of phlegmon of palmer fascia.
Excision of tonsils.
Amputation of cervix uteri for cancer.
Operation for tuberculosis of sternum and ribs.
Vaginal hysterectomy for cancer.
Iodoformization and fixation of hip-joint for tuberculosis.
Removal of intra-uterine polypus.

SERVICE OF DR. ROBERT REYBURN.

Amputation of penis for carcinoma.
Stricture urethra, two cases.

SERVICE OF DR. E. A. BALLOCH.

Abscess, submaxillary.
Stricture urethra.

SERVICE OF DR. F. J. SHADD.

Dilatation of cervix.
Curettement.

COLLEGE NOTES.

COLUMBIAN UNIVERSITY.

MEDICAL DEPARTMENT.

Dr. J. Ford Thompson's clinical course at Garfield's Hospital has come to a close for this session.

Dr. deSchweinitz is lecturing to the juniors on organic and inorganic chemistry on Tuesdays and Saturdays, respectively.

Dr. King has recently bought a new manikin, which was produced for the benefit of the seniors, on Friday the 21st instant.

Dr. Johnson is at present lecturing on the nervous system. He will, in all probability, devote the remaining portion of the session to the consideration of this subject.

Dissecting material appears to have been amply sufficient this year, the great majority of the students having finished their parts. It will probably be unnecessary to secure any more.

Dr. Shute's Friday lectures at the Fifteenth and H Streets university building were very much enjoyed, not only by medical students, to whom they were of particular interest, but by all who were fortunate enough to be able to attend.

Dr. J. Ford Thompson has returned to his old schedule of two lectures a week. While demonstrating on the cadaver he lectured every night. He also had the fourth year men perform operations on the cadaver during these lecture hours.

Dr. Morgan, lecturer on Materia Medica, in describing the effects of Cannabis Indica, recently read two accounts written by former students of the medical department of the Columbian University, who had taken the drug. Their statements were very interesting and thoroughly enjoyed.

The excision of the sac of a popliteal aneurism by Dr. J. Ford Thompson on the 8th instant, was one of the difficult operations performed at Garfield Hospital this month. This operation is one which is very seldom undertaken, and it is with pleasure the statement is made that the patient is doing well.

Dr. Shute, lecturer on anatomy and Dr. Carr, who lectures on physiology, have been given the students food for thought in their different views regarding the question of evolution. Dr. Carr states that he does not think it is proven, and therefore, does not believe it. Dr. Shute on the other hand, while acknowledging it is not proven, states that the evidence is so overwhelmingly in its favor that it is impossible for him to doubt the truth of the theory.

There is much gratification expressed over the good news of Dr. Prentiss' restoration to health. He is at present in Bermuda. Although thus separated from the college, he has been keeping himself well acquainted with what transpires here, especially as regards the progress of the students in his particular branch, Materia Medica; which chair Dr. Morgan is at present filling with the ability which characterizes all his undertakings. Dr. Prentiss is looking forward with pleasure to a resumption of his duties in the fall.

C. Norman Howard.

GEORGETOWN UNIVERSITY.

MEDICAL DEPARTMENT.

At a meeting held on the 11th, M. D'Arcy Magee was selected as valedictorian. We feel confident that "Mac" will do us proud.

The lectures on hygiene are bright, interesting and instructive. Thanks to Dr. G. M. Kober, who by his earnest efforts and kindly manner has won a warm place in the hearts of the boys.

Col. Forwood, U. S. A., in his lecture on operative surgery, called our attention to the article in the Annal of Surgery, on the value of cocanization of the nasal mucous membrane before and during surgical anæsthesia, with report on 100 cases, by Dr. A. G. Gerster of New York.

On Friday evenings, the seniors and undergraduates wear beautiful, bountiful smiles, that suggest a satisfaction in their knowledge of the practice of medicine. The cause of this is easily understood. Dr. Lovejoy invariably of late congratulates the boys on their excellent quiz marks.

From remarks heard, it seems to be conceded by all, that the class of '96 has had a greater number of hours of lectures, clinical and laboratory instruction then any other class ever graduated from this institution. Every member of this class with the exception of two, devotes his individual attention to the study of medicine. This is a rare occurrence in this vicinity, not so, in other parts.

The different committees to make arrangements for the commencement exercises in May have been appointed. Classes '96, '97, '98 and '99 being called on to furnish their quota of committeemen. Such an array of talented and enthusiastic workers would be hard to beat. The chairmen of committees are: Daniel S. Webb, (that prince of good fellows), executive; Alfred Richards, arrangements; Frank Baker, Jr., reception.

Dr. Henry D. Fry kindly invited the senior class to witness him employ Branton Hicks' combined method, in a case of placenta prævia marginalis. The easy manner in which this was accomplished created a great deal of discussion among the boys. Dr. Fry presented with his compliments to each member of the class, Bar's Antiseptic Methods in Obstetrics. This book is translated from the French edition by the doctor. It will always be prized very highly, not only for its meritoriousness, but for the fact that it bears the signature of our esteemed professor.

J. Milton Heller.

Alfred A. Smith & Co., manufacturers and dealers in Surgical Instruments of this city, have donated to the National Fencibles' Fair a handsome case of general operating instruments to be voted to the most popular medical student in the District of Columbia. Notice their new advertisement in this number. It is of especial interest to medical students.

"In the present case, the bill for regulating vivisection in the District of Columbia ought to be vigorously opposed by every person who cares for the progress of human knowledge and who has a spark of philanthropic feeling in his breast. The evil that would result if vivisection were entirely abolished is something appalling to contemplate. Let those who do not believe this take a survey of the history of tuberculosis, rabies, antisepsis and diphtheria in the last ten years."—Extract from Editorial in Medical Record.

PROCEEDINGS OF MEDICAL SOCIETY OF D. C.

Typhoid Fever.

At the meeting of the Medical Society for Jan. 5th, Dr. Sterling Ruffin read a paper on the Treatment of Typhoid Fever. Dr. Ruffin reviewed the various treatments recommended for this fever and then related his experience with the Woodbridge method. He was favorably impressed with this new treatment.

DISCUSSION BY DR. H. C. YARROW.

Dr. Yarrow said he had had a good deal of experience with this disease both in the Army and outside. At first he followed the teachings of Dr. G. B. Wood of Philadelphia. Later he had good success, especially in the Army, by following the treatment of Bartholow, the use of carbolic acid and iodine. Still later he used the treatment of Yeo of London, chlorinated water, cold effusions and quinine. This year he determined to try the Woodbridge method on a patient just down with the fever. For four days he could not secure the tablets. Obtaining them on the evening of the 20th of October he gave them as recommended and, little by little, the temperature decreased until the thirty-first day it was normal. Of course Dr. Yarrow said this one case proved nothing in particular, although it was a contribution to be added to other cases.

DISCUSSION BY DR. G. W. COOK.

Dr. Cook said that he thought this treatment had been tried at Garfield Hospital with the result that there was no difference in the course of the disease from the ordinary, except in one case. In this case the temperature remained high until the Woodbridge tablets were discontinued when the temperature began to fall. He did not believe there was a germicide in use which would disinfect the alimentary canal.

DISCUSSION BY DR. W. P. CARR.

Dr. Carr said that he thought each of the germicides had some special action on certain germs. Guaiacol was a very powerful antiseptic on some patients. The best way to determine whether an antiseptic was going to do any good was to try it. In this instance there was a report of 1,200 cases in which the Woodbridge treatment had shortened the duration of the fever. He said he knew of a number of cases treated by this method and in some of them the medicine had not been used as directed, which might account for the failures.

DISCUSSION BY DR. A. BEHREND.

Dr. Behrend said he had treated a number of cases of typhoid fever last summer and had given them all five grains of guaiacol carbonate every two hours. He endeavored to have the patient have from three to six movements of the bowels each day. He did not lose one of his cases, although some of them had the fever for three weeks and even longer. Some had abscesses which he did not lance. He had noticed that these cases which were usually cut were usually lost.

DISCUSSION BY DR. W. W. JOHNSTON.

Dr. Johnston said he did not think at the present time there was that unanimity of opinion that was necessary to settle the question as to the cause of typhoid fever. As many as fifteen years ago a paper was published which described cases of undoubted typhoid fever which did not last more than two weeks and some only ten days. In mild forms of the disease the fever frequently terminates in eighteen days. He did not believe that Dr. Woodbridge had given the matter sufficient consideration.

DISCUSSION BY DR. S. S. ADAMS.

Dr. Adams said that as far as intestinal antiseptics were concerned he had no faith in them. The only case of vomiting he had seen occur in typhoid fever, was the result of using sulphocarbolate of zinc or some other intestinal antiseptic. There was a certain proportion of cases that would get well without any medicine. He had not given any medicine at the Childrens' Hospital, in typhoid fever, for over three years. A great many cases require only rest in bed and diet. When the temperature goes up he uses the Brand method of treatment. Dr. Adams was inclined to think that Dr. Woodbridge's prescriptions were like the firing of a gatling gun in their effect; they were bound to hit something. His treatment was like some of the cathartic pills placed on the market. They contained an immense number of ingredients; some of them inert and others chemically or therapeutically incompatible.

DISCUSSION BY DR. T. A. R. KEECH.

Dr. Keech said he used thymol in all stages of the disease. Sometimes he thought he saw beneficial results from its use, if it was employed during the first week, but after that time he could not see that much improvement followed. He believed that the essential part of the treatment was the diet. If a patient was put upon a good nutritious diet, absolutely fluid, and were sponged off several times a day, almost every young person would get well. In a practice extending over twenty-two years he had lost but three cases of typhoid fever. He did not believe that patients required medicine, except to meet some indication. In two cases in one family, aged ten and six, the former was confined to the bed for several weeks while the fever had entirely disappeared from the later in sixteen days. In this last case the child received nothing but sterilized milk and water.

CLOSING DISCUSSION BY DR. BUFFIN.

Dr. Ruffin said he simply desired to call the attention of the medical prefession to the Woodbridge treatment, and to add that he thought it was entitled to a trial. If, when Brand published his treatment, the profession had said there was nothing in it, and refused to grant it a trial, twenty persons out of every hundred attacked with typhoid fever would be dying to-day.

THE PARASITE OF MALARIA.

At a meeting of the medical society for January 15th, Dr. W. B. French read a paper on the above subject. This paper fully illustrated appears in a current number of the New York Medical Journal.

DISCUSSION BY DR. WALTER REED.

Dr. Reed said that while Dr. French was making his observations in Washington, observers in India were examining the blood of malarial patients and they concluded that no malarial parasite existed. This announcement had already had its effect. Notwithstanding the work of Lavaran, Osler and Councilman, the publication of the investigations in India had weakened the faith of some in the existence of this parasite. These India investigators held that this so-called malarial parasite was nothing but the nucleus of the white blood cells and that what were considered to be points of pigment were nothing but the pigment of the degenerated red blood cells. Dr. Reed said there was no more resemblance between the nucleus of a leucocyte and a malarial parasite than there was between the dome of the Capitol and the Washington Monument. When hæmoglobin degenerated there were formed two kinds of pigment, derivatives of hæmoglobin, one with iron and one without. The first was a ruby crystal, and the second a yellowish brown amorphous powder. In acute affections where there was degeneration of the red cells these pigments were found in the liver, the spleen and bone marrow. In cases of malarial infection pigment is found in the red cells and it is neither of those just mentioned, but consist of a black, refractive pigment, concerning whose chemical composition we know absolutely nothing. This pigment was formed within the parasite and it was formed know where else. It was found only in malarial diseases. Admitting it to be a sign of degeneration of the red blood cells, yet it appears only in cases where the supposed parasite was present. Dr. Reed gave other reasons concerning the effects of certain stains, which lead to the conclusion that it is absolutely impossible to believe we are dealing with any degeneration of tissue. The conclusions of the Indian medical officers are not correct. There is no mistake with regard to the existence of this malarial parasite.

DISCUSSION BY DR. J. J. KINYOUN.

Dr. Kinyoun said he had been successful in two or three cases in making a diagnosis in peculiar cases of fever in children by finding these parasites. Examining the blood is very important in puerperal cases. In cases where labor is followed by a chill and fever, it is possible in this way to tell wethher the symptoms were of malarial origin or not. If more microscopical examinations were made he was sure a large per cent of the cases which die of malarial infection would be prevented in the future.

DISCUSSION BY DR. G. N. KOBER.

Dr. Kober said one point had not been brought out, which was that it was well known that the malarial parasite had been transmitted from a patient to a healthy individual by intravenous injection, showing that the organism must reside in the blood.

REPORT OF COMMITTEE ON PUBLIC HEALTH.

At the meeting of the medical society for January 22d, Dr. W. W. Johnston read the Report of the Committee on Public Health, Typhoid fever, etc.

DISCUSSION BY DR. ADAIR.

Dr. Adair said there was another source from which typhoid fever may have emanated, besides those given by the committee. He referred to a reservoir near Great Falls which had not been used for a long time. Some time in July the masonry between the reservoir and the Aquaduct gave way and the only thing to be done was to fill this reservior and turn the water into the city supply. Is it not probable that this had been a propagating bed for malarial and typhoid germs, and the turning of this water into the general supply accountable for the sudden increase in these diseases in July?

DISCUSSION BY DR. G. L. MAGRUDER.

Dr. Magruder thought the great diminution in the rain fall this year was largely accountable for the increased death-rate in typhoid fever and malarial fevers. From this cause there was a concentration of the poison in the wells and rivers. This condition of typhoid fever, as well as other fevers, had extended throughout the entire country. This was the case on the Hudson River, in which section he spent part of last August. Typhoid fever had prevailed there where it had not been for years. It was directly due to the diminished water supply. Too much stress could not be laid upon the necessity of providing means for filtering the water used for domestic purposes and he hoped that the authorities would appreciate it. Dr. Magruder urged that members support the Health Officer in his recommendations regarding the establishment of a becteriological laboratory and the proper supervision of milk and dairies.

DISCUSSION BY DR. W. C. WOODWARD.

Dr. Woodward said the Potomac water should be filtered. Domestic filtration was not practicable, because it could not be insisted upon, and also because some did not have the means to secure a good filter and take proper care of it. It is no longer necessary to consider the question whether the Potomac water suplv was or was not able to purify itself. Bacteria emanating from the intestinal tract had been found in the water as it was drawn from the spigot. There was no reason therefore why the typhoid bacilli should not be there also.

DISCUSSION BY COMMISSIONER TRUESDELL.

The Commissioner said that one difficulty which they encountered in securing legislation was that they seldom had public support. Because of the lack of interest shown by citizens, the committees of Congress sometimes thought the commissioners were the only ones interested in the legislation asked for. A committee from the medical society could do much to reenforce the statements of the Health Officer and the Commissioners by appearing with them before the committee of Congress.

DISCUSSION BY COMMISSIONER POWELL.

The Commissioner said that in order to aid them in closing up the existing wells, an appropriation of $10,000 had been asked for to defray the expenses of driving wells to replace those closed. These were wells which were sunk to a depth of from 150 to 200 feet. There are now about a dozen of these driven wells in the District and he would suggest that physicians take the opportunity to inquire into the condition of the water obtained from them. It was believed that these wells were good and would not be contaminated by surface drainage.

DISCUSSION BY DR. S. C. BUSEY.

The President of the society gave some data which had been prepared for use before another body. He gave the number of houses in the District the number supplied with water for business and domestic purposes, etc. Dr. Busey said that 41,270 houses were supplied with sewer connections and 13,000 had privy boxes. The first-class contributed 261 typhoid fever houses, and the second 160. The percentage of typhoid fever houses were three times as great for those without sewer connections as for those with such connections.

DISCUSSION BY DR. W. P. CARR.

Dr. Carr called attention to the errors in diagnosis between typhoid and malarial fevers. The figures for the last ten years gave Brooklyn a mortality from malarial fever higher than that for typhoid. He had observed that those cities which were reported to have a low mortality from typhoid fever had a high death rate from malarial fever; and yet it was a recognized fact that death from malarial fever was of rare occurrence. He thought that the high death rate from typhoid fever in Washington was due to the fact that the physicians here were more careful in making a diagnosis between the two diseases. Typhoid fever should not exist in this city, and every one wanted to hasten the time when we would get rid of it. He wishing to call attention to the fact that malarial fever could be propagated by very simple things. He sighted a case where an overflowing rain barrel had caused trouble. As soon as it was removed the cases of fever disappeared.

MEETINGS OF THE MEDICAL SOCIETY.

At the meeting of the Medical Society for January 8th, Dr. T. E. McArdle presented a specimen of Osteo-sarcoma of the foot. This was discussed by Drs. Kerr and J. Ford Thompson.

At the meeting of the society for January 15th, Dr. J. Ford Thompson presented a specimen of Extra-uterine Fœtation. This was discussed by Drs. Kerr, J. T. Johnson and J. F. Thompson.

At the meeting of the society for January 22d, Dr. J. H. McCormick demonstrated the Gelatine Dressing in diseases of the skin. This was discussed by Drs. McGuire and McCormick. Dr. J. W. Bovee presented the following specimens: Abdominal hysterectomy for uterine fibroids, complicated by pyosalpinx and pelvic abscess. Also a large submucous fibroid complicating the puerperium. Still birth: Removal of the growth by the vagina. At the same meeting, Dr. W. W. Johnston presented a complete report from the committee on Public Health. This was discussed by Drs. Adair, Magruder, Woodward, Commissioners Truesdell and Powell, A. F. A. King, Kober, H. L. E. Johnson, Carr, S. S. Adams, Busey and W. W. Johnston.

At the meeting of the society for February 5th, Dr. G. N. Acker presented the following specimen: Typhoid Fever. This was discussed by Drs. Acker and J. Ford Thompson. Dr. H. L. E. Johnson presented several specimens removed by laparotomy.

The firm of Schulze-Berge & Koechl has transferred its entire business to the new firm of Victor Koechl & Co. This firm has the entire control of Behring's diphtheria antitoxin. They also introduced Antipyrine and many other new and valuable remedies.

Dr. C. F. Tucker of Syracuse, N. Y., writes a stirring letter to Battle & Co., describing his experience in exposing a local firm who confessed to him they had been filling his prescriptions for Bromidia from a substitute preparation. Dr. Tucker strongly objects to seeing a reliable old friend used in this way. Substitution is the great problem of the day.

The catarrhal and rheumatic forms of la grippe often present to the physician a condition which indicates the prescribing of iodides. Henry's Tri-Iodides readily dissolves accumulations of secretions, relieves pain without the use of opiates and produces immediate results without any accompanying bad features such as iodism, coryza, etc.

BOOK REVIEWS.

PRINCIPLES OF SURGERY. By N. Senn, M. D., Ph. D., LL. D., Professor of Practice of Surgery and Clinical Surgery in Rush Medical College, Chicago; Professor of Surgery in the Chicago Polyclinic, etc. Second edition. Thoroughly revised. Illustrated with 178 wood-engravings and 5 colored plates. Royal Octavo, Pages 656. Extra cloth, $4.50 net; sheep or half-Russia, $5.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

The second edition of this work shows many improvements over the first, which appeared some five years ago. The notable advances made in pathology during this time have made it necessary to add much new material to a work of this character. More than fifty new illustrations appear, many of which are original. In the November number of this Journal we noticed a work by this same author on the "Pathology and Surgical Treatment of Tumors." It hardly seems credible that two such important volumes could be issued simultaneously by the same author. This work is unique in its treating of the fundamental principles of the art and science of surgery. Dr. Senn illustrates throughout the work, again and again, the value of a thorough knowledge of the complicated reparative process in the treatment of injuries and disease by surgical intervention. Such a volume as this is absolutely necessary to all physicians who desire to keep abreast of the times. The text books of a few years ago are almost worthless, so marked have been the recent discoveries relating to the etiology and pathology of surgical diseases. It is a work of value to the surgeon, the student and the busy general practitioner.

THE PRINCIPLES OF BACTERIOLOGY. A Practical Manual for Students and Physicians. By A. C. Abbott, M. D., first assistant, Laboratory of Hygiene, University of Pennsylvania, Philadelphia. Third edition, enlarged and thoroughly revised. 12mo., 402 pages, with 98 illustrations, of which 17 are colored. Cloth, $2.50. Philadelphia: Lea Brothers & Co., publishers.

Only a year has elapsed since the appearance of the last edition of this interesting book. Yet so rapid are the strides in bacteriology that a number of important changes have been found necessary. The etiology, the modes of transmission and the means of prevention of infectious maladies are described with much clearness. The practical value of the science of bacteriology is becoming more and more appreciated and no better evidence of the fact is needed than the call for this new edition. No medical education can now be considered complete without instruction in the bacteriological laboratory. The volume before us gives all necessary information for the equipment of such a laboratory and for the cultivation of disease-breeding organisms. Although the third edition of this work is increased in size, yet it is reduced in price in view of the continual growing demand. Prof. Abbott has given us a book that is full of interest even to those who do not make a special study of this subject.

The Year Book for 1896. This is the twelfth issue of the Year Book from the house of Lea Brothers & Co. of Philadelphia. The profession is already well enough acquainted with the work to appreciate its good qualities. New sections have been added and the work has been made more comprehensive than ever before. Notice is given of new inventions and of therapeutic and dietetic novelties. There are nearly 500 pages in the work, and a large number of remedies and diseases are discussed. Such concise reviews as are here found save an immense amount of general reading and give us nearly all the advances of the past year in every branch of medicine.

The Popular Science Monthly for March contains an interesting article on Exercise as a Remedy. The author shows how potent a curative agent exercise is when carefully prescribed and how dangerous it may be in some cases. Prof. Wm. R. Newbold relates a number of his experiences with hypnotic patients. Another interesting article is on the Study of Inheritance.

We are in receipt of Reprints from Drs. Henry D. Fry, Thos. C. Smith, James F. Scott, D. W. Prentiss and Francis P. Morgan.

THE
NATIONAL MEDICAL REVIEW.
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CHAS. H. STOWELL, M. D., EDITOR.

THE EDITOR'S TABLE.

The "X" Rays. The Roentgen rays still continue to absorb the attention of the profession and the public. Indeed it appears that one will be as much profited as the other by this remarkable discovery. We have lately visited Dr. J. J. Kinyoun in his laboratory at the Marine Hospital Bureau. The doctor has a number of fine negatives from which he has already taken some interesting proofs. One plate is especially interesting, because it clearly proves how it is possible to photograph metallic substances, as bullets, when lodged in flesh. Dr. Kinyoun placed a silver quarter beneath the hand, and made an exposure lasting only five minutes. The result is that the hand is faintly outlined, while the bones produce the characteristic shadows. No light appears to have passed through the metal; hence on the print it shows as a black circle. The remarkable and interesting fact about this plate is that the exposure was so short, and yet the contrast was so great. Dr. Kinyoun also has some very clear prints of pens, keys, coins, etc., photographed under unusual circumstances. These substances were first placed in a pasteboard box; the box placed in a wooden box; and this wooden box placed on another wooden box, in which was the sensitive plate. The exposure here was only for a few minutes, and yet the plate is as distinct and clear as any we have seen. Dr. Kinyoun is now working on the effect of these rays on bacterial life. He has already had certain results which have excited the keenest interest, but not enough has been done to warrant a statement for publication.

Medical Treatment Fibroid Tumors. So much is written about the electrical and surgical treatment of fibroid tumors of the uterus that it is interesting to read anything from an authority concerning their medical treatment. A recent number of The Journal has an article on this subject by Prof. Franklin H. Martin of Chicago. Dr. Martin says that the rapid growth of these tumors and a condition of general good health very rarely exist together, therefore he assures his patients that if they can keep themselves in a condition of good health their tumors will not increase in size. While doubtless a rapidly growing tumor causes poor health, yet it is still true that its growth may be retarded by adopting those means which will keep up the natural tonicity of the system. In other words a rapidly growing tumor bocomes one of the aids to still more rapid destruction, therefore fibroid-tumor patients should be abundantly nourished. Bitter tonics should be administered to increase the appetite if necessary. The patient should be urged to drink milk and cream between the meals. Prepared foods, both of the nitrogenous and farinaceous order should be employed to reenforce the ordinary diet. For nerve tonics Dr. Martin prefers compound syrup of hypophosphites with small doses of quinine, strychnia and iron. He especially mentions strychnia in gradually increased doses beginning at one-fortieth or one-sixtieth until the patient takes one-tenth of a grain four times a day. General stimulating baths often prove beneficial. Vaginal douches may be used but the water should be above 115 F. and the patient should use at least two gallons at a time, and in the recumbent position on the back. Change of air or a trip across the ocean may be necessary to regain the lost tone. Dr. Martin says that arsenic, five drop doses of Fowler's solution, is such a powerful alterative and is so satisfactory in maintaining a general condition of tone that it is strange it has not run the gauntlet of a specific. He often prescribes muriate of ammonia in 5 to 10 grain doses to be taken in one-half glass of water on rising in the morning, as a hepatic stimulant. But he does not place much reliance upon it as a specific. He frequently uses calomel in doses of one-thirtieth grain 2 or 3 times a day for a period of twelve days. In discussing the whole list of sedatives to relieve temporary suffering he favors chloral in 20 to 30 grain doses, dissolved in three ounces of water, and used as a rectal enema not oftener than once in four hours for severe pain. He mentions as a favorite prescription a solution of the bromides of potassium, ammonia and sodium, in doses containing ten grains of each, given once every four or six hours. For local astringents he regards alum as one of the safest and most efficient. Wicking or strips of gauze or cotton tampons may be prepared, and kept for emergencies by dipping them in a 20 per cent solution of alum in hot water, and then evaporating the water of solution by exposure to the air. If this tampon be now applied directly to the bleeding cavity the fluids will dissolve the alum and the local effect be secured. In ordinary bleeding the vaginal tampon alone is necessary, but when the hemorrhage is alarming, the uterine canal should be first packed. Dr. Martin speaks in high terms of the use of hydrastis canadensis. He gives the fluid extract in doses of ⅓ to ½ drachm three or four times a day. He believes that it acts as an astringent with especial predilection for the uterus, while at the same time it is an efficient bitter tonic. When given constantly as a direct curative agent it can best be administered in the form of the solid extract in capsules. In speaking of ergot he says it has occupied such an important place in the treatment of fibroids of the uterus that he will later devote a special article to it.

Illustration in Medicine.

The Medical Record shows an advertisement of a new preparation said to be prepared from the red marrow. The two illustrations are declared to be made after actual photo-migrographs, illustrating the appearance of the blood of the patient before and after using this new remedy. The drawing of the red corpuscles are actually the worst we have ever seen. They look as much like cabbages or squash as blood cells. The comical side of the question is that the advertisement says "The corpuscles are of good shape", while they are simply hideous. By placing a magnifying glass over these corpuscles "of good shape" the whole secret is revealed. There the coarse strokes of a stub pen are clearly brought out, showing how the artist was unable to make his lines meet, but frequently let them over lap. It is one of the most dismal failures at scientific instruction we have ever seen.

Death Rate Among Children.

In an editorial recently published we made a statement that at least one-third of all children die before they reach their fifth year. As this statement has been questioned we are now prepared to give our authority. Recently Frederick L. Hoffman of New York, a well known statistical expert, has published the results of his investigations on infantile mortality. He does not give the number of deaths the first year, but publishes the following:

Between 1 and 2	62.78
Between 2 and 3	35.38
Between 3 and 4	23.62
Between 4 and 5	17.47

According to this paper the death rate is still over 33⅓ per cent, not counting the high mortality of the first year. Our estimate, therefore, was probably too low rather than too high.

Public Health Reports.

We are in receipt of the report of the committee on Public Health as presented to the Medical Society of this city on January 23d. The work of the committee was divided as follows: Dr. Carr, malarial diseases; Dr. Morgan, tuberculosis and smallpox; Dr. Mayfield, contagious and diarrheal diseases; Dr. Hyatt, diphtheria and antitoxin; Dr. Leech, chronic diseases, alcoholism and inebriety; Dr. Chappell, diseases and mortality in the county; Dr. Johnston, typhoid fever, sewerage, water supply, etc. The report is published by the Marine Hospital Bureau, and we presume copies of the same can be obtained by addressing Surgean General Wyman.

Fallen from the Monument.

We have taken delight now and then in calling attention to a tumble which some one has taken after thinking himself taller than the Washington Monument. When such a catastrophe befalls us we are as ready to enjoy the joke, and it is now our turn. In the last issue of this Journal we became greatly inflated with pride, and wrote an editorial which appeared on page 2. In this article we said: "The publishing of the Hospital reports has been a surprise to the local profession in the way of showing what an immense amount of valuable work was being accomplished in our midst". But the assertion was only an exhibition of a pride, which was to precede a fall. Hardly had the Journal appeared when we were told there was dissatisfaction about these hospital reports. It appears that there is an objection to publishing operations without reporting results. But to wait for a year or two, or perhaps longer, to report on the cases of "hysterectomy for cancer" is running a journal on the antideluvian plan. The only alternative offered was to publish the operations performed in each of the hospitals, as heretofore, but without giving the names of the operators. But to this there are strong objections. Therefore we take a leap from the top of the monument, where we were seated in March, and humbly prostrate ourselves at its base, in April. We will publish no more hospital reports. It was one of the most interesting and valuable features of this Journal. Interesting and valuable because it gave the local profession a better idea than they have ever had before of the amount of work being performed in these hospitals.

Good Money In It.

We are in receipt of a circular from a local dealer in optical specialties, proposing "to keep a careful account of the charges on all refraction cases sent to us by each physician, and at the end of every month to allow each physician 20 per cent on the sum total of all the cases he may have sent us during the month". We are also generously supplied with a test chart, which tells everything about the oculists business. We can now afford to advise our patients for $1, for we can send him at once to this optician, who can fit him with $5 glass, and we can thus obtain the remaining dollar! But how about the poor patient who has to pay just 25 per cent more? The answer would probably be, "—— the patient!" It hardly seems possible that any dealer in merchandise, in 1896, would have the audacity to send such a circular to medical men. We have just that confidence in the medical profession to make the assertion that this dealer will not get a half dozen prescriptions a month on the basis he proposes.

Knew It all the Time.

In the February number of this Journal we had an editorial on the Study of Pediatrics. We made the statement that there were only three Colleges which had full professors of this branch. Recently we noticed the advertisement of the Marion Sims College of Medicine, of St. Louis, and in glancing over the Faculty our eye was rivetted to the name of I. N. Love, M. D., professor of diseases of Children. Then it came to our mind that we knew all about this, and knew it at the time we wrote that editorial. We have known Dr. Love as a professor of Pediatrics for seven or eight years. We have known also that his instructions are both didactic and clinical. It is a full chair in every way, and occupied by a man who can fill it too. We once knew of a man who stopped at the post office for his mail in the midst of a pouring rain. The protection from the storm and the warm stove caused him to linger in the building for sometime. At last a friend asked him if he had not better invite his wife in out of the storm, as she had neither a covered carriage, nor an umbrella. The man started out of the building with a jump, exclaiming that he had forgotten entirely that she was there. In forgetfulness, therefore, we place ourselves by the side of this man, and present our apologies to one of the most accomplished and learned teachers of this country.

The Newness of It.

With respect to the newness of the discovery by Dr. Edson of his cure for consumption a recent writer in the Medical Record says that for twenty-five years he has successfully treated hundreds of cases of malarial fever by hypodermic injections of a two per cent solution of phenol. He also declares that when working with Dr. Declat, in Paris, in 1871, the same method of making phenic acid was then employed. He claims that this work "has been imitated in producing aseptolin".

A Criminal Exhibition.

A terrible exhibition of daily occurrence in this city, is where riders carry on their wheels children under two or three years of age. When accidents happen so frequently to the very best of riders it seems horrible to think that anyone could incur such fearful risks. If such persons do not know enough to better protect the lives of their children they should be taught their duty by the stern hand of the law. Let the Anti-Vivisection Society pay attention to some of these things, rather than shed all of their tears over the destruction of a few cats or a canal mule.

Hope for the Front Row.

A German physician says that after three or four applications of methyl chloride to the hairless portions of the head, a fine growth gradually appears. The remedy is sprayed on the parts once a week. He does not state when these applications must cease, nor the extent of damage it might cause in producing too exuberant a growth, nor the danger of making us a race of Chinamen.

A Narrow Field. We are in receipt of a letter from the Phillips Chemical Company in which they state that their Emulsion "will give satisfaction where all other emulsions fail." We had supposed that this emulsion would give occasional satisfaction at least, in other cases. We do not see any reason why it should be limited to such a small field. It appears that we must wait until "all other emulsions fail' before this "will give satifaction"!

Death of Dr. Smith Townsend. At the meeting of the Medical Society for Feb. 26, the following resolutions on the death of Dr. Smith Townsend were adopted:

Whereas, the Medical Society of the District of Columbia has learned of the death of Dr. Smith Townsend, a member who was prominent as a citizen and a physician, a man of genial and sterling character, and who, as Health Officer for many years labored for the sanitarp improvement of the city, therefore,

Be it resolved, that we deeply regret his death, and extend our sympathy to his bereaved relations.

Resolved, that a copy of these resolutions be sent to the family of the deceased.

A country newspaper announces that "Our esteemed townsman Mr. J. S. has been put in oil by the artist Durey, and is now on exhibition at the post-office."

COMMUNICATION—TO INFLATE THE EAR.

I desire to submit to the readers of your interesting journal a method of forcing compressed air through the catheter, that was brought to my attention two years ago, since which time I have successfully used it. This method is as follows: After making an examination of the ear and observing the amount of pressure the ear drum can stand, I regulate the guage on the air receiver to any pressure from ten to forty pounds. I generally begin with about ten pounds, and if the patient complains of pain I force a very small amount that day and gradually increase the pressure the next sitting. A piece of rubber tubing is placed over the nozzle of the cut-off about one inch in length. The catheter is arranged in position, and the other end of the tube is inserted into the catheter. By this means I can force either a continuous or interrupted current of air by pressing the thumb on the handle of the cut-off.

Medicated vapors can be applied in the same way. I use a vaporizer-bottle, called the Universal, (the Globe vaporizer bottle is on the same principle). Cut the rubber tubing off about two inches. Fasten one end of a small rubber tubing two feet long and one-eighth of an inch in diameter, by rubber cement to the nozzle of the cut-off, and the other end over the end of the catheter. In this way great pressure can be made by forcing the vapor through the Eustachean tube to the tympanic membrane. For some ear drums, very much thickened from attacks of catarrh for years, where one would think that it would be impossible to do anything, I begin with twenty pounds pressure. On some patients this can be only used for about half a minute, while on others it can be used about as long as you would use Politzers' bag in forcing the air through the catheter. I have noticed in using this method that a number of patients whom I have almost given up, have been able to hear, after treatment, the tick of the clock.

Tennitus is relieved in many patients by the medicated vapors (after a few applications) which if left unrelieved would make the patient's life miserable.

S. B. Muncaster.

1510 H Street.

COLLEGE NOTES.

GEORGETOWN UNIVERSITY.

MEDICAL DEPARTMENT.

Dr. Coffron is lecturing on organic chemistry; he is an old friend with a new subject, having instructed us in urinalysis. To a man, we are glad to have him with us again, but the subject this time, does not seem to meet with the same favor.

Dr. C. L. Allen is giving a very interesting course on the diagnosis of diseases of the nervous system, including electro-diagnosis. Some of the lectures will be devoted to electro-therapeutics. This is one of the new additions made to the curriculum this season.

Stuart C. Johnson, well known in athletic circles and who played on the Varsity eleven two years ago, was elected to represent the medical department on the University Athletic committee. If there are any record breakers among the students, Shorty will be sure to discover them.

Dr. J. J. Kinyoun is a great favorite with the boys and his lectures on diphtheria have been listened to with the greatest of interest. The doctor has been experimenting with the Roentgen ray and it is understood that he will demonstrate it when his experiments are completed.

A glee club has been formed among the different classes, which should develop into a first class organization as their is any amount of good material to be had. Singing is a capital accomplishment for a doctor, as I have heard quite often of doctors visiting patients for a long while and then whistling for their money—these embryos will be able to sing for it.

Dr. S. S. Adams, professor of Pediatrics, held his last clinic of the season at Childrens' Hospital, March 26, at which time with a few well chosen words, he complimented the seniors and undergraduates on their excellent work throughout the course. The only regret the seniors have is that Dr. Adams was not connected with the College before this season, so that two years of lectures could have been received, instead of one.

The class of '96 is modernized to an extreme degree, for instance: It is seriously talked of that each man in the graduating class should come up for his diploma with a smooth shaven face, so that the start in the profession will be made in the right manner—in a purely aseptic condition. This plan is immensely popular with a few men in the class, who will be beardless when the great event comes, but not from choice.

J. Milton Heller.

NATIONAL UNIVERSITY.

MEDICAL DEPARTMENT.

Dr. Thompson demonstrated fœtal circulatiog to the junior class, using a five months' fœtus for the purpose.

The senior class is in the thrœs of ligations and amputations, Dr. Kolipinski is weilding the sword and the boy's are hopping around quite merrily.

Dr. Sprigg interested his class in experimental work: several feline specimens acting as understudies; the heart and lungs received major consideration.

Work amongst the dissector's is progressing favorably, some exceedingly fine dissections have been made, and a marked interest is manifested by the class in the study.

Dr. Smith speaks highly of nitrate of silver in throat affections, syphilitic sore throats are relieved quickly and even the tubercular is checked for a period by its judicious administration.

Mr. Edwin Watkins of the senior class, who has made himself quite popular with the members, has received the honor of valedictorian for the class of '96. You don't have to turn a Roentgen ray on Edwin.

The third and fourth year classes are busy with surgical pathology, the course this year in this branch will be longer than usual, owing to the length of the present session. The term does not end until April 30th.

Dr. Winter considers hot applications efficacious in lobar pneumonia. When prescribing whiskey, where there is an objection to its use, he combines it with compound tincture of gentian, thus disguising its presence.

Dr. Edwin Gladmon, a graduate of the school, is assisting Dr. Barker with his obstetrical class. Numerous quizzes are held by the doctor and practical points of interest to the accoucheur are dwelt upon. The mechanisms of labor receive proper attention by thorough demonstrations and manipulations on the Primard manikin.

Valuable information is garnered by the members of the graduating class who are called on alphabetically by Dr. Kolipinski to assist him in private surgical operations. Usually too members are invited, one administers the anesthetic, while the other assists at the operation. The practical part of medicine is always desirable and necessary.

Dr. W. A. Caldwell's lecture on brain and nervous diseases gave a full description of the S. Weir Mitchell treatment for chronic cases of hysteria. The doctor's treatment of his snbject, which is considered one of the most difficult in the healing act, has been most clear. His lectures are always preceded by a quiz of a half an hour on the previous subject lectured upon. Necessarily the class is compelled to be prepared.

Dr. Wilmer claims that there are many error's in diagnosis on the part of the general practitioner in iritis and acute glaucoma, and as an aid to the class he gave the following diagnosis:

Acute glaucoma.	Iritis.
Nausea and vomiting.	None.
Pupils widely dilated.	Contracted.
Tension, stony.	Not increased.
Injection.	Same.

In searching for foreign bodies when other means have failed, he recommends the use of the neutral solution of fluoresin, this changes the color of the field to green and extraneous bodies not taking this color are easily detected and removed.

D. E. Wiber, D. D. S.

PROCEEDINGS OF MEDICAL SOCIETY OF D. C.

Cod Liver Oil—A Food and a Medicine.

At a meeting of the medical society for January 29, Dr. T. E. McArdle read a paper on the above subject. Dr. McArdle discussed the whole question of the use of the alkaloids versus the whole oil. He said he believed he was "In the fullest accord with the vast majority of conservative writers and investigators in declaring that the whole oil is necessary for the production of the best results". The valuable alterative properties of this oil are due, not to any special ingredient but to its combination as a whole. The taste and odor of this oil, together with its often causing an oily diarrhœa and eructations of gas make many patients object to it. But if the oil be given in the form of an emulsion, these objections are largely removed. Only a thorough reliable emulsion should be prescribed, one known to contain a certain amount of oil, and one known also to be permanent. In speaking of the dose he said that "ten drops of a good emulsion will, in many cases, give immeasurable good, where a tablespoonful of the pure oil will prove harmful." He closed his paper by describing the good results which came from the use of cod liver oil. It increases the appetite, improves digestion, aids assimilation, adds flesh and strength, begets energy and force, adds vigor to the weakened frame, gives the blush of health to the cheeks, and so equally promotes the nutrition of every function as to enable the patient to wrestle successfully with an otherwise fatal malady.

DISCUSSION BY DR. C. H. STOWELL.

Dr. Stowell said it was absolutely impossible for him to see how any food value could be placed upon the alkaloids of cod liver oil. It seemed to him that it would be as rational to speak of the food value of an active principle of potatoes or any other vegetable. There could be no such thing as an active principle or alkaloid of food. Therefore, the alkaloids of cod liver oil represented this product minus any food value. If the question was one of the medicinal value of the oil only, then the alkaloids might possibly answer, provided they could be separated from the oil unimpaired. He believed this was absolutely impossible. There was clinical proof that a difference existed between the natural and the chemically prepared mineral waters. In the natural state there was a combination which could not be imitated. That this same principle exists in the case of cod liver oil he also believed to be true. It appeared that some manufacturers took certain ingredients of cod liver oil as the iodine, bromine, etc., and adding some pleasant vehicle called it a preparation of cod liver oil, when the truth of the matter was, not a particle of oil was present. Dr. Stowell thought there was danger to the usefulness of cod liver oil in the practice of some pharmacists who purchased so-called emulsions of cod liver oil in bulk of large houses, and then filled physicians prescriptions from it. Neither the prescriber, the dispenser nor the patient had anything like an accurate idea what the mixture contained. Still another danger existed in the practice of putting "preparations" of cod liver oil on the market, when not a particle of the oil was present. To be sure, the proprietors of such preparations had a carefully worded circular accompanying their preparation which says that they do not pretend there is cod liver oil in their mixture, but only the curative properties found in that oil. Yet they call it a "preparation of cod liver oil". Dr. Stowell thought that only such preparations should be prescribed as the physician knew contained definite quantities of the whole oil and a preparation which could be relied upon at all times.

DISCUSSION BY DR. T. C. SMITH.

Dr. Smith said that in some persons benefit might be derived from the use of the oil during convalescence. In the early stages of phthisis where patients were able to take open air exercise, the use of this remedy was attended with good results. If past this stage where such exercise was impossible, the oil would not do any good. He had long been impressed with the fact that unless tubercular patients could be turned out into the open air, you could not get a good effect from cod liver oil.

DISCUSSION BY DR. A. BEHREND.

Dr. Behrend said he had found that this oil was an excellent article to administer in tuberculosis. He had found it excellent particularly in children in the early stages of the disease. He alluded particularly to the pure oil without any emulsion. He thought the refinement of the oil had been carried so far that it had done much toward giving the profession inactive preparations.

DISCUSSION BY DR. G. L. MAGRUDER.

Dr. Magruder said that while he was in charge of the diseases of children at the Central Dispensary he had found cod liver oil an invaluable aid in restoring broken down children. It had accomplished wonderful results. He had frequently combined it with the syrup of hypophosphites with excellent results. He thought the profession would do well to absolutely frown down the thousand and one emulsions prepared to be used in filling prescriptions. It was a great injustice to patients as well as to the pharmacists of this city to encourage the sale of these outside emulsions. They were frequently stale and had undergone changes which made them unfit for use.

GENERAL DISCUSSION.

Drs. Franzoni and Kleinschmidt called attention to the phosphatic emulsion so generally used in this city, made after a formula given to the profession by the president, Dr. Busey. Dr. W. W. Johnston said he believed that Hughes Bennett was the first one to write an article in English on cod liver oil. He thought this was in the year 1848.

CASTRATION FOR HYPERTROPHY OF THE PROSTATE.

At the meeting of the medical society for February 5th, Dr. J. R. Wellington read a paper on the above subject. Dr. Wellington said the treatment of these cases has been far from satisfactory. Palliative measures are often beneficial but not curative. To Dr. J. Wm. White belongs the credit of first suggesting the possibility of castration inducing an atrophy of the prostate. He was led to make his investigation by the analogy between fibroid growths of the uterus and hypertrophy of the prostate, being to a considerable degree similar in structure and both occurring at about the same period of sexual life. He also showed that in both man and animals in whom castration had been performed the prostate failed to develop or atrophied. Two years later 111 cases were reported with a mortality of 18 per cent, while there was a cure, practically perfect in nearly one-half of the cases. The results were much more favorable than from any of the other radical operations for this condition. Dr. Wellingten reported two cases operated upon by Dr. J. Ford Thompson, in one of which there was a decided improvement while the other died twenty-three days subsequent to the operation, from an unexpected complication, after having shown signs of improvement.

DISCUSSION BY DR. A. A. SNYDER.

Dr. Snyder reported a case quite similar to these reported by the author of the paper. He had another case at Garfield Hospital, that of a boy with a tubercular testicle which he removed, and ten days after the operation the prostate on that side was very much reduced in size. A third case came under his observation in Dr. VanRensslaer's service. An examination in this instance disclosed the fact that the prostate was very much smaller on one side than on the other and on further investigation it was discovered that the testicle on that side was atrophied.

DISCUSSION BY DR. PICKREL.

Dr. Pickrel said he had a patient at the Naval Hospital suffering from epididymitis. He had suffered from a number of accidents, hemorrhages, etc. He had suffered also from frequent attacks of retention of urine, and during the last year they had become very much more frequent and of longer duration. He had rigors during the day and at night his temperature would range between 99 and 102. After repeated attacks of this trouble, he consented to an operation, and both testicles were removed. The results of the operation were all that could be desired.

DISCUSSION BY DR. FORWOOD.

Dr. Forwood said that among the 800 inmates of the Soldiers' Home there was a good deal of material for testing the value of castration in enlargement of the prostate. He then reported a case which was on the opposite side. The prostate was very much enlarged in this case and the patient was unable to pass the urine without the aid of a catheter. The patient readily consented to an operation which was performed. The prostate almost entirely atrophied away, but the man was not relieved from his trouble. Dr. Forwood had removed one testicle from a patient for a tuberculous affection. In a few weeks it was found that the prostate was smaller on that side than the other. Three months later it became necessary to remove the other testicle, and now the prostate had almost entirely disappeared.

DISCUSSION BY DR. J. FORD THOMPSON.

Dr. Thompson said he had no additional cases to report. Up to the time that White brought his operation forward, Dr. Thompson had considered the suprapubic operation by all odds the best in this trouble, and he confessed that he had not entirely changed his mind. Dr. Thompson did not think there was any analogy between the operation of removing the ovaries in women and castration in very old men. He thought that this kind of surgery was being carried too far. He had operated on a number of men, and had examined a great many cases after death, and had met with conditions where castration would hardly have given relief. In cases where a tumor existed in the substance of the gland, causing pressure on the urethra, he thought surgeons were running a great risk in depending on this operation for a cure. In these cases, where the tumor was sometimes large, the bladder should be opened and prostotectomy performed. These tumors could frequently be twisted off, and, after this had been done, and the bladder drained in order to get the patient in a better general condition, castration could follow when necessary and when the patient's consent could be obtained. His opinion was that when called to see cases of this kind, where they were complicated with cystitis and a great deal of residual urine, and catheterization was difficult, it was better to do suprapubic cystitotomy to relieve the patient, and after that perform the other operation if the patient was willing. In cases of bilateral enlargement, Dr. Thompson thought that White's operation was the best and should be performed. At the present time however, he did not think that castration could be relied upon to effect a cure in all cases of enlarged prostate. He thought there would be a change of opinion in favor of the suprapubic operation and drainage. He had some very good results from this method. Dr. Thompson thought castration could be relied upon in hospitals, but if operating any where else under bad conditions, he would drain the bladder first and do castration afterwards.

Fads and Fashions in Surgery.

At the meeting of the medical society for Feb. 12th, Dr. S. O. Richey read a paper on the above subject.

DISCUSSION BY DR. S. M. BURNETT.

Dr. Burnett said there were various views as to the propriety of doing graduated tenotomy, one of the operations referred to by Dr. Richey. No operator of to-day would advocate the operation in all cases. The more experience he had with this operation, the more he was satisfied with it. He had operated in a great many cases, and had yet to see the case in which he had done harm. He had made the statement that, if given time enough, he could put the muscles in any place he desired. It was not always possible to foretell just what the result would be, but any deformity resulting could be corrected.

DISCUSSION BY DR. T. MORRIS MURRAY.

Dr. Murray said that he thought Dr. Richey was too conservative in his surgery of the nasal passages. He thought when the nasal cavity was reduced below the normal in caliber it was very desirable to get rid of offending growths in order to avoid the symptoms which followed these conditions. He thought that the best and quickest way to obtain relief in cases of hypertrophy of the turbinated bodies was by surgical interference.

CLOSING DISCUSSION BY DR. RICHEY.

Dr. Richey said he believed in surgery only when it was possible to get rid of the products of disease in that way. The difference between Dr. Burnett and himself in the matter of tenotomy was that he obtained results without operating. In reply to Dr. Murray he said he did not intend to give the impression that he believed in absolutely enucleating the turbinated bodies. As a matter of fact he did not do so. In reply to a question by Dr. J. H. Bryan, how he reduced enlarged tonsils, he said he injected into the crypts of the tonsils a solution of from ten to one hundred grains of silver nitrate. This was superior to the promiscuous clipping of the glands until it was better understood what purpose they served in the human economy.

GENERAL DISCUSSION.

The president, Dr. S. C. Busey, asked what difference there was between cutting the tonsils off and burning them out.

Dr. Richey replied that silver nitrate was not a caustic; it entered into a chemical combination with the tissues.

Dr. J. Ford Thompson stated that no one cut tonsils out; a portion of the gland was simply taken off. He had cut them off in a great number of cases and had never seen any bad results.

Dr. Richey said Dr. Thompson was the very kind of a man he had spoken about; one who had cut off his peck of tonsils and knew no more about them. He had reduced them by other methods.

Dr. Thompson said that Dr. Richey's method of dealing with hypertrophied tonsils reminded him of doctors who cured piles by making injections into them, when a surgical operation would effect a cure in a few minutes. He doubted very much whether the doctor could give any lessons upon tenotomy, tonsillotomy, etc. He had relieved many suffering children by the latter operation, and he had seen no evil results. If the proper amount of tissue was taken off he could see no objection to the operation. He had never seen a case of recurrence of the trouble.

Linear Supra-Malleolar Osteotomy for Deformity Following Pott's Fracture.

At a meeting of the medical society for Feb. 13th, Dr. Jas. Kerr read a paper on the above subject.

DISCUSSION BY DR. J. FORD THOMPSON.

Dr. Thompson said that for fifteen years he had treated fractures of the leg only with plaster of Paris, and always had good results. If properly applied this could be left on as long or as short a time as was desirable. In cases of Pott's fracture an assistant made extension on the foot while the plaster bandage was being applied, and he had never seen an unpleasant result in his own practice. He follows this kind of treatment often in the worst kind of compound fractures. In these fractures if antiseptic treatment was used in dressing the limb, plaster of Paris bandages might be used, for the external wound would heal, and the case be converted into simple fracture. If the fracture be properly reduced at the first visit, and put up in plaster of Paris, with inversion and fixation of the foot, the result would be entirely satisfactory. The real question, however, was how to remedy cases which had been attended with unfortunate results. In a large number of Pott's fractures there were really three fractures, and the small portions of bone were likely to give rise to trouble. It was his opinion that in a bad case of this deformity, without any displacement forward of the lower end of the tibia, osteotomy of the fibula and then of the tibia, removal of the piece of the malleolus, and then resetting the bone to bring the articulating surfaces absolutely horizontal, was the preferable operation. If the foot were simply forced forward instead of the surface being made horizontal exactly the opposite effect to that sought to be accomplished would be the result.

CLOSING DISCUSSION BY DR. KERR

Dr. Kerr said he would like to take issue with Dr. Thompson about plaster of Paris. Dr. Thompson's experience with its use had not been his, but it may be that he did not have so much skill in applying it. Dr. Kerr said that this deformity is due to the alteration of the weight of the leg upon the foot, and the operation of setting the foot, so as to bring it in the proper axial relation with the leg, is all that is necessary. Dr. Kerr spoke of the bad results of the old method of treatment, and this had led him to devise a new method of treatment. It occurred to him that the deformity might be relieved by bringing the foot into the proper relation with the leg without regard to the site of fracture, when the fibula would spring back into place. As this bone is very elastic it would come into its proper position when the foot was drawn into its proper relation to the leg. The whole question is one of pressure axis of the limb.

Freaks Pertaining to the Diseases of the Skin.

At a meeting of the medical society for Feb. 19th, Dr. Jas. C. McGuire read a paper on the above subject.

DISCUSSION BY DR. C. W. BROWN.

Dr. Brown, referring to cases of "leopard skin" men, said he had seen a mulatto in Philadelphia with white patches on the face about one inch across, and also on the body. The patches grew from month to month until they became larger than the patches of dark skin. He was called a "coach man" because he resembled a coach dog. He had passed out of Dr. Brown's sight for five or six years, and when he again came under observation the white and dark spots were about equal in area. It seemed that their relations varied.

DISCUSSION BY DR. J. H. MC CORMICK.

Dr. McCormick said that ichthyosis was not an infrequent disease. He had had a case referred to him by the Health Officer, of a girl twelve years of age, suffering from this disease. Her skin resembled the scales of a fish. The child had been refused admission to the public schools for fear the disease might be contagious, when the father referred the case to the Health Officer for decision. He also related a case of cucaderma occurring in a colored man in Georgetown, who had well marked spots on his body. In cornea cutanea the patches of skin often assumed very fantastic forms. In all these diseases the cause was frequently ascribed to impressions received by women during pregnancy. He had come across quite a number of these cases in his study of peculiarities in medicine.

DISCUSSION BY DR. J. FORD THOMPSON.

Dr. Thompson said that he had seen a case of "canities unguium" before his professional life began, and before he learned they were so rare. It occurred in a colored man in Maryland who had the reputation all abount the county for his nails, which were as white as milk. The other recorded cases had occurred he believed in white men.

CLOSING DISCUSSION BY DR. MC GUIRE.

Dr. McGuire said that there were only two recorded cases of canities unguium, both were seen in Vienna, and in both cases the nails were otherwise normal.

SIGNIFICANCE OF RENAL CASTS.

At a meeting of the medical society for March 4th, Dr. Geo. Barrie read a paper entitled "Clinical Significance of Renal Casts." The author demonstrated in a measure the frequency with which casts and albumen are found in the urine of persons apparently healthy in every respect. The urine of fifty persons between the ages of fifteen and sixty-five years was examined who presented absolutely no symptoms of disease, with the result that in 40 per cent of the cases traces (heavy and faint) of albumen was found and in 26 per cent casts were present, most of them of the hyaline variety. Centrifugal sedimentation was used. Another group of cases was presented showing the frequency with which albumen and casts are found in the urine of persons who seek the advise of the physician but who present none of the characteristic symptoms of renal mischief, apart from the presence in the urine of albumen and casts. In a third group were included a few cases of known Bright's disease with all its characteristic symptoms, the cases cited presenting some rather unusual features. The value of the contrifuge as an aid to early diagnosis was especially dwelt upon. The object of the paper was to impress upon the profession the importance of the examination of the urine of all persons regardless of the symptoms of disease, and of the use of the centrifuge for sedimentation, which it was believed enabled one to find casts in the urine that by the old method of gravity was lost sight of, and in many cases any lesion of the kidney structures is discovered so much earlier. It seemed to the writer that the earlier a diagnosis could be made the greater the opportunity of preventing many of the cases of chronic Bright's disease. He did not think that the presence in the urine of albumen and casts was necessarily a serious condition or that the kidneys of persons in whose urine albumen and casts were found necessarily damaged to any great extent. So long as the normal end products of nitrogeneous and hydrocarbonaceous metabolism was eliminated there was not much to fear. He believed casts and albumen in the urine under these conditions were a note of warning that it behooved us to heed and adopt the necessary measurcs for giving the kidneys the rest they required.

DISCUSSION BY DR. W. W. JOHNSTON.

Dr. Johnston said that since '86 or '88 investigations in the field of urinary examination had been turned in another direction. Since that time he did not think there had been any essential change of views on this subject. The greatest change had been in regard to the significance of other things than casts, especially as to the question of renal inadequacy in connection with urea and other excreted solids. This question had grown to be of greater inportance than the question of casts and albumen. Formerly if the urine of a pregnant woman was free from casts and albumen she was supposed to be safe, yet now, even when no albumen or casts were present, if there were headaches, etc., she was said to be suffering from "renal symptoms." The examination of the urine of puerperal women is far different than formerly. The amount of urine in twenty-four hours is now measured as well as the amount of solids excreted in the same period of time. Dr. Johnston said he frequently had pregnant patients suffering from recurrent headaches with a diminished amount of urea, and a diminished excretion of urine.

This condition was remedied by a restricted diet, the administration of laxatives, and the copious ingestion of water. Gouty subjects, who almost all the time pass a small amount of urine, have casts in the urine, but these are simply one of the phenomena of irritation of the tissues of the kidney. While their presence did not indicate a disease of the kidney, yet their continuance would undoubtedly indicate tissue change. While the excess of uric acid was not of itself considered as being anything serious, yet if found in connection with highly concentrated urine and hyaline casts, such individuals might ultimately have interstitial nephritis. If these patients come under the care of a physician early they could be cured by putting them upon proper diet, and by being taught proper methods of living. The definition of "renal symptoms" had change very much of late years. A few years ago only the most pronounced symptoms as dropsy, uræmia, etc., were classed as renal symptoms. The kidney was the organ which excreted the largest amount of solids, and when its functions were disturbed, symptoms of toxæmia as "migraine" urticaria, convulsions, etc., resulted. These are the results of renal inadequacy without any real disease of the kidney substance. A recent paper has shown that a large number of renal symptoms were probably due to the retention in the blood of the uric leucomaines, which were excreted in small quantities, when certain nervous symptoms were present. These leucomaines were so poisonous that a mouse injected with an infinitessimal dose has tetanoid and convulsive symptoms and quickly dies. In this line, rather than in the line of determining the presence of casts and albumen he thought that we would arrive at the proper knowledge of the excretory function of the kidney, and of its relation to symptoms, the origin of which was at the present unknown. Oxalate of lime seems to have a particular facility for irritating the kidneys, and producing casts and albumen. In oxalic acid poisoning casts and albumen are usually found. In concluding, Dr. Johnston said that there were undoubtedly many cases in which casts and albumen were present, but which were not beyond the stage where a cure was possible. He had the history of a number of cases which had been under his observation for eight or ten years in which albumen and casts had been found, but had disappeared. Since then only one had died, and all the rest were now apparently well. Frequent examinations of the urine show that in some the casts were present intermittently, and in the others always present. Cases with albumen and casts are undoubtedly curable.

DISCUSSION BY DR. ROBERT REYBURN.

Dr. Reyburn said that most of the Life Insurance Companies still refuse applicants if albumen or casts were found in their urine, but it was now admitted by the best authorities that a man might have albumen and casts in his urine, and yet ultimately recover. He had recently had a case in which every symptom was present that we would expect to find in Brights' disease, hyaline casts, dropsy, etc., but the man was now apparently well with neither casts nor traces of albumen.

DISCUSSION BY DR. J. D. MORGAN.

Dr. Morgan stated that he had noticed that not so much depended on the presence of albumen or casts in the urine as upon the excretion of nitrogenous matters. He had several cases recently under his care in which the urea had been markedly diminished, and instead of the normal 420 grains in 24 hours only 50 or 60 grains were excreted, and this was kept up for two or three weeks with no objective or subjective symptoms. He thought that it was possible that other substances in the urine took the place of the urea when this was deficient. This might be the uric acid leucomaines. In a recent case of his there were the worst possible symptoms, blood, fatty casts, and an abundance of albumen, etc., yet the patient was now gaining in weight, and the casts were disappearing. Even in the worst forms of parenchymatous nephritis we could hold out a hope of at least a partial recovery of the patient.

DISCUSSION BY DR. G. N. ACKER.

Dr. Acker said that hyaline casts were often present with oxalate of lime and uric acid crystals. We must use care to recognize casts which come from the prostate gland, and distinguish hyaline from mucous casts. In regard to healthy persons it was difficult to say whether a man is ever perfectly well. He recalled the case of a noted swimmer and athlete who had jumped from the Brooklyn Bridge and been killed. At the post mortem examination, cysts of the kidney were found, yet this man was apparently perfectly sound. But when we find albumen casts in the urine of any person he should say that that person was in an unhealthy condition. At 50 or 60 years of age it was quite common to find hyaline casts from errors of diet, etc.

In reply to a question by Dr. A. F. A. King, Dr. Barrie said that a "trace" of albumen was one-tenth of one per cent by weight. The ferrocyanic acid test was the one most used for albumen both here and abroad. Whether the urine was alkaline or acid it would precipitate albumen and nothing else.

Cerebral Hemiplegia.

At the same meeting of the medical society, Dr. F. B. Bishop read a paper on "Cerebral Hemiplegia: Its Differential Diagnosis and Rational Treatment."

DISCUSSION BY DR. G. N. ACKER.

Dr. Acker said that he would like to know whether any case had ever been operated upon for the removal of a blood clot from the brain. He thought that would be very bad practice. The President, Dr. S. C. Busey, remarked that they usually died anyhow. To this Dr. Acker replied that there had been several cases in the Garfield Hospital which did not die. He did not see, however, how removing a clot would stop a hemorrhage. Ligation of the carotid artery could be done, but was of doubtful expediency.

DISCUSSION BY DR. J. FORD THOMPSON.

Dr. Thompson said that as for cerebral hemorrhages, when they came from an artery that could be easily reached, its ligation was an operation well known in surgery. He did not believe that the treatment advocated by Dr. Bishop would ever come into general practice. Like Dr. Acker he had seen a number of cases get better but they usually had repeated attacks, and finally died. He thought there would be very few surgeons who would attempt to perform an operation for trephining in order to reach a clot in the interior of the brain. Whenever it is possible to locate the clot and it was accessible there was no hesitation in operating for it, and it was done every day. He thought that electrical treatment had better be reserved for those cases that generally died.

CLOSING DISCUSSION BY DR. BISHOP.

Dr. Bishop said that in those cases where there was a capsular hemorrhage, surgery was out of the question, and it was these cases that he endeavored to treat to the best of his ability by the means of electricity. The cases which would be treated by surgery were those of traumatic hemorrhage where the patient had received heavy blows on the head, resulting in concussion. In this case the dura mater is said to be forced from the skull, and in consequence the middle meningeal artery is ruptured, followed by a period of unconsciousness, and later by a period of consciousness, which is followed by coma. Individual muscles, sets of muscles, or a dilated pupil might indicate the side of lesion. These were the cases that might be operated upon. The mortality from such operations is much less than when the cases are left to themselves. Dr. Bishop said he could not tell whether the electricity penetrated the brain and went to the very spot he wished to treat or not, but he did know that this treatment gave results that were beneficent. He could not tell whether the results were because of the electricity penetrating the brain, or by acting on peripheral nerves, or by disturbing molecular action in the entire body.

Meetings of the Medical Society.

At the meeting of the medical society for Feb. 19, Dr. G. N. Acker presented a specimen of Tumor of the Mediastinum and gave a history of the case. Dr. J. Ford Thompson presented the following specimens with histories: Cystic tumors of the neck; Large fibroid of the Uterus. Dr. W. W. Johnston presented A Foreign Body, which had remained in an infants Stomach for several Months.

At the meeting of the society for Feb. 26, Dr. H. A. Robbins read a paper on Syphilis of the Vital Organs. Dr. Metzerott read a paper on 250 cases of Syphilis wrongly treated by Specialists.

At the meeting of the society for March 4, Dr. S. S. Adams presented the following: A case of Convulsions produced by foreign bodies in the Gastro-Enteric Tract.

BOOK REVIEWS.

A TEXT-BOOK UPON THE PATHOGENIC BACTERIA. For Students of Medicine and Physicians. By Jos. McFarland, M. D., demonstrator of Pathological Histology and lecturer on Bacteriology in the Medical Department of the University of Pennsylvania. 113 illustrations, 360 pages. W. B. Saunders, 925 Walnut St., Philadelphia, Pa. Price $2.50.

Medical literature is now being well supplied with technical treatises on the study of bacteriology. In the work before us a brief description of the life history of the important pathogenic bacteria is given, and this is following with a description of the pathological lesions accompanying the invasion of these micro-organisms. The author describes only such bacteria as can be proven pathogenic by the lesions or toxins which they engender. Such a book finds its greatest usefulness in the hands of medical students, although no practitioner can persue its pages without both interest and profit. Special chapters are devoted to the pathological examination of air, water and soil. Acute and chronic inflammatory disease are studied, as also are toxic and septic diseases. The work is an exhaustive one, and will be accepted at once as a standard authority.

ELECTRICITY IN ELECTRO-THERAPEUTICS. By Edwin J. Houstan, Ph. D. and A. E. Kennelly, Sc. D. The W. J. Johnson Co., 253 Broadway, New York. 1895. Price $1.00. 130 illustrations, 400 pages.

This book is intended to convey reliable information respecting the application of electricity to therapeutics in such a manner that the subject can be understood by those not specially trained in electro-technics. While there is much of interest in the volume to the general practitioner, and especially, to those who have made little or no study of electro-therapeutics, yet it appears to us best adapted to those who are not engaged in the practice of medicine, and yet are interested in electrical studies. Yet we cannot forget there are many phvsicians who desire a work on the fundamental electrical principles of electro-therapeutics, expressed in simple language, and which can be understood without previous training. To all such this work must be heartily commended.

DON'TS FOR CONSUMPTIVES; Or The Scientific management of Pulmonary Tuberculosis. By Chas. Wilson Ingraham, M. D., Binghamton, N. Y. 1895. 218 pages.

We have read this volume by the editor of the New York State Medical Reporter with pleasure and profit. The principal criticism which we would make is in the name. We have constitutional scruples against anything which comes under the head of "Don'ts"! The author believes in the tubercle bacillus, and everything which must accompany such belief. He also believes that consumption will one of these days be rendered curable. To contribute to the forces which shall conquer the disease which sacrifices "450 human lives daily" is the purpose of this volume. Carried to its full legitimate conclusion there can be no question but the methods here advocated for the destruction of all infectious matter and the protection of those associated with consumptives is correct. Yet we fancy such extreme views will hardly be carried out. It will be difficult to make the public believe that all handkerchiefs must be discarded, and only muslin cloths used, and these burned as soon as soiled. The directions for not using dishes, towels, napkins, or table ware in common with others will be most difficult, in fact quite impossible to enforce. It is impracticable to exclude consumptive persons from the kitchen and common dining room. The author is inclined against seeking relief from change of climate. He says that "If the invalid will give proper attention to himself his chances of recovery in his native climate are infinitely better than if he were to go to a favorable climate, and not attend to his general management in a scientific way." The author has advised methods here, which, as we have said, it will be quite impossible to carry out, and yet no one can dispute but such directions are in the right direction. Taken as a whole, therefore, we must commend the work, and can say to the invalid who reads it that he is to live up to it as nearly as possible.

COLOR VISION AND COLOR BLINDNESS. A practical manual for Railroad Surgeons, by J. Ellis Jennings, M. D., lecturer on Ophthalmoscopy and chief of the Eye Clinic in the Beaumont Hospital Medical College. Fully illustrated. Tne F. A. Davis Company, publishers, Philadelphia. 1896.

This volume of over 100 pages is very interesting to all who have paid any attention to the question of color blindness, and is valuable to those who are especially concerned in testing color vision. The theories of color blindness are discussed and the methods for detecting the same are given with much detail. The instructions for examinations of employes as to vision, issued by the Penn. R. R. Co. are also given.

A MANUAL OF MEDICAL JURISPRUDENCE AND TOXICOLOGY. By Henry C. Chapman, M. D., Professor of Institites of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia. Second edition, revised. 55 illustrations and three plates in color. 254 pages. Price $1.50. W. B. Saunders, publishers, Philadelphia. 1896.

This is a subject upon which physicians have little knowledge. But few medical colleges presume to give instructions in this important branch, and what knowledge of jurisprudence the physician desires he must gather from general reading, after his college days are over. Toxicology is a subject which is better understood; although this has been too much neglected. Physicians should know their rights as medical experts and they cannot obtain this knowledge better than to read such works as the one under discussion. We often hear physicians complain of the time they have lost by being summoned as witnesses. From a financial standpoint alone a knowledge of medical jurisprudence will often bring in large returns by saving an unnecessary expenditure of time around the courts.

MISKEL. A NOVEL. By L. M. Phillips, M. D. The Editor's Publishing Co., New York.

This is a story of hypnotism. Written for doctors, it will prove especially interesting to them. Its perusal will furnish entertainment and some profit. Of course everything comes out exactly right in the end owing to the great courage and ability of the hero.

SYPHILIS IN THE MIDDLE AGES AND IN MODERN TIMES. By Dr. F. Buret, Paris, France. Translated from the French, with notes, by A. H. Ohmann-Dumesnil, M. D.: professor of Dermatology and Syphilology in the Mari-n Sims College of Medicine. Being Volume II or III of "Syphilis To-day and Among the Ancients," complete in three volumes. 12mo, 300 pages. Extra cloth, $1.50 net. Philadelphia: The F. A Davis Co., publishers, 1914 and 1916 Cherry Street.

These volumes continue the history of Syphilis from prehistoric times to the present day. The author has ransacked literature in his search for evidence and he presents here some valuable information which he has discovered and which only enthusiastic scholars would succeed in unearthing. He finds evidences of Syphilis in prehistoric remains. In the last volume the best hygienic measures for the prevention and extension of this disease are discovered.

WASHINGTON; or the REVOLUTION. A drama founded upon the historic events of the war for American Independence. By Ethan Allen. Published by F. Tennyson Neely of New York. Price 50 cents. This is part second of the Drama and takes the Revolution from the battle of the Valley Forge to Washington's Inauguration as President of the United States.

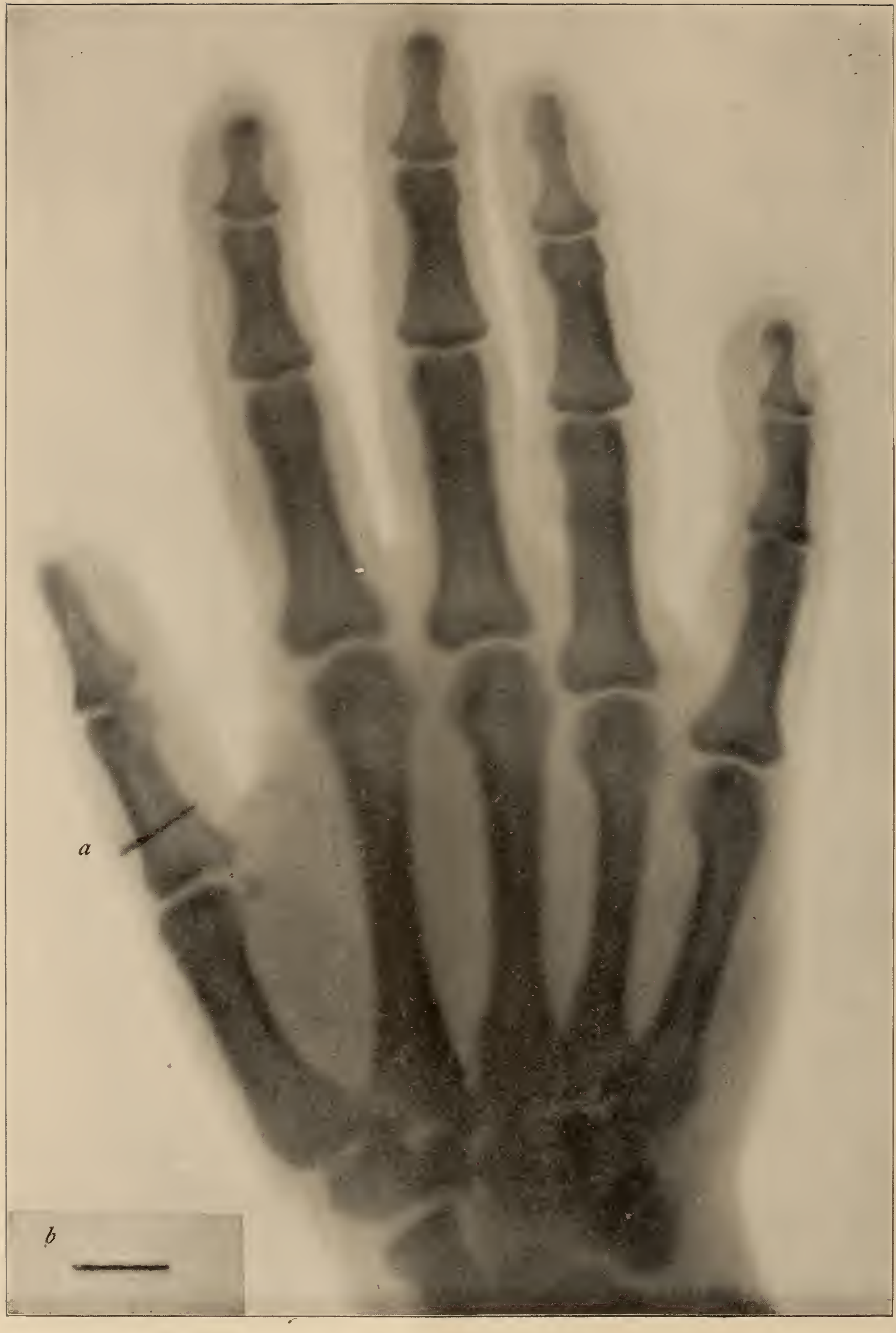
We have had occasion to remark concerning the immense income which some physicians say they receive, or which their friends say for them. One physician told a patient his income for 1895 was "about $7,000". This friend told it to another friend who remarked, "If that is the case, perhaps he can soon pay me for the money I advanced to him in order that he might pay his gas bill last month."

"Smith is walking around to-day as if he were stepping on eggs."

"He needs to."

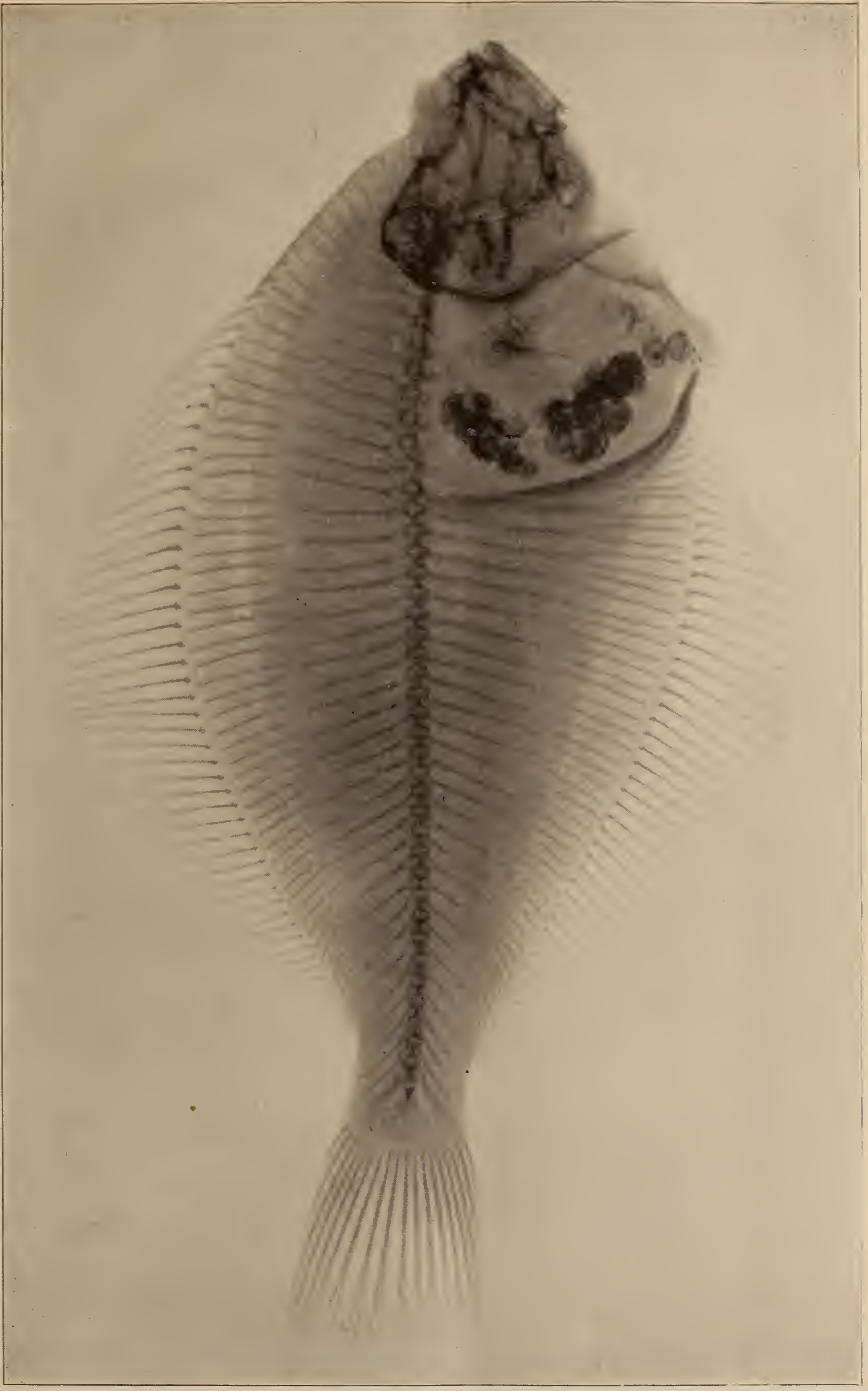
"What ails him?"

"Why, last night after he had gone to bed he remembered that he should have taken some quinine capsules. He got up in the dark and took 'em. This morning he discovered that he had swallowed three twenty-two caliber revolver cartridges!"



Actinogram of a lady's hand, showing the position of a needle broken off in the thumb and outwardly invisible. Taken by Roentgen's rays in the Physical State Laboratory at Hamburg, February 22, 1896.

(*a*) *Needle in the hand.* (*b*) *Common photograph of the needle after extraction.*



Actinogram of a young plaice (*Platessa*) with shells in its intestines. Taken by Roentgen's rays in the Physical State Laboratory at Hamburg, February 21, 1896.

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CHAS. H. STOWELL, M. D., EDITOR.

THE EDITOR'S TABLE.

Treatment of Pneumonia. We reproduce in this number an article which appeared in the April number of the Archives of Pediatrics, on the Treatment of Pneumonia in the Children's Hospital of Washington, D. C. In the same number of The Archives are other articles which give the treatment of pneumonia in the Children's Hospital of New York, Boston and Philadelphia. Dr. L. Emmett Holt treats the patient as follows: The temperature of the room is kept at 70. Children are removed from the ward at least once a day to allow a thorough airing. Great attention is given to feeding, as the worst thing to be feared is the slow failure of nutrition. Water is given freely, usually combined with stimulants. For the youngest infants, peptonized milk is the chief reliance. The general plan of treatment is to use as few drugs as possible, reserving the stomach for food and stimulants. Expectorants have been found to do but little good and much harm, and are now entirely discarded. To reduce high temperature with extreme nervous symptoms, cold is applied to the head, cold sponging, and the cold pack or cold bath. For restlessness, phenacetine is more generally used than any other drug, and next to this, codeine. Counter-irritation is made by mustard pastes, one part of mustard to six of flour. Poultices are discarded. Inhalations are used systematically in all cases, usually every three or four hours. For this purpose the child is placed in a closed tent in which steam is introduced from a croup kettle. With the steam creosote is usually vaporized, but sometimes turpentine or benzoine is substituted. The inhalation is continued from 10 to 20 minutes at a time, and has been found more satisfactory in controlling cough than any other remedy hitherto employed. Whiskey is given in quantities varying from one-half to three ounces in 24 hours. Strychnine is given in doses of 1-300 of the grain to a child one year old, every four hours. The children wear throughout the attack an oil-silk jacket. In brief, the treatment is pure air, careful feeding, judicious stimulants, counter-irritation and inhalation. Dr. J. P. C. Griffith, of Philadelphia, has discarded poultices and cotton jackets. Counter-irritation is used occasionally, oftenest in the form of turpentine stupes to relieve pain. He employes the coal tar antipyretics rarely, although he does not think their employment should be entirely abandoned. Aconite is seldom used. Digitalis is used only when the condition of the circulation demands it. Strychnine is used only as a respiratory and cardiac stimulant. Expectorant drugs are seldom or never used. Opium and quinine are rarely used. Alcohol is not administered regularly, although it is given in small doses to conserve strength. It appears that Dr. Griffith has no regular routine treatment and gives but little medicine. Dr. E. M. Buckingham of Boston, says that his medical treatment is purely symptomatic. It has been several years since any antipyretic has been used in the Children's Hospital. Many patients go through the disease from beginning to end without any medicine whatever, and in this statement stimulants are to be included. The opinion to be derived from reading these articles is that medicine does not play the important part in the treatment of pneumonia that it did years ago. The disease is carefully watched, and the symptoms are treated as they arise.

Pilocarpine in Diphtheria. All literature on the subject of diphtheria, if emanating from competent authorities, is valuable. It may be either favorable or unfavorable to antitoxin, yet its value is unaffected for that reason. There is an impression in some quarters that nothing valuable can be said if it is against the serum treatment, but these same writers have done much to place this treatment in its true light. Dr. E. W. Saunders, professor of Pediatrics in the Missouri Medical College, recently read a paper on the treatment of diphtheria in which he calls attention to the things antitoxin will and will not do. He says antitoxin secures the organism against the further ravages of diphtheria within 18 to 36 hours after its administration. It does this one thing only and does it well. It never repairs damage already done by the toxines, nor does it aid the system to recover from the depression produced by them. Dr. Saunders says that as antitoxin does not immunize the organism against the toxines for nearly twenty-four hours after its administration, so a remedy is needed which will secure their immediate elimination. The recital of the instantaneous effects produced upon the moribund patients by the serum injections does great harm. It retards the universal acceptance of a remedy "which is one of the greatest advances made in the whole world since the time of Jenner." Yet a remedy is needed which acts before the antitoxin does its work. Dr. Saunders says such a remedy exists in pilocarpine. It will reduce the fever of diphtheria from 103 or 104 to 100 or 101 rapidly, and within twelve hours will reduce it to normal. At the same time all the symptoms improve. Twenty-four hours after the antitoxin is used there is generally no further use for the pilocarpine. He believes that the toxines are eliminated with the saliva and the danger of the first twenty-four hours is lessened. He also believes that this early use of pilocarpine greatly lessens the danger of having convulsions. Another great advantage of the pilocarpine is that its action may be instantaneously interrupted if desired by hypodermics of atropia, although the author has never had occasion to employ the antidote. Dr. Saunders wishes to enforce his belief that antitoxin leaves a period untreated and that pilocarpine fills this gap completely. He considers local treatment important, and nothing is left undone which could possibly result in rendering aid to the system. The two great remedies are pilocarpine and antitoxin; the pilocarpine being used to secure prompt action which cannot be secured by the antitoxin for from 18 to 36 hours after its administration.

Electricity in Fibroids. In the last number of this journal we called attention to an article by Prof. Franklin H. Martin, of Chicago, on the medical treatment of fibroid tumors. Since then Dr. Martin has contributed another article on the use of ergot in these cases, and still later another article on the value of electricity. These articles also appeared in The Journal. So much has been written of late against the use of electricity in the treatment of these growths that any strong testimony in its favor becomes interesting reading. Dr. Martin discusses the subject in a very impartial way and says that if hysterectomy, with its average mortality of five per cent, ended the matter, and if the 95 per cent recovering gained their health immediately he certainly should have but little to say. But he must consider the months of nervous suffering which these patients who recover must endure after the operation, that there are many well known disastrous sequelæ following these operations, and lastly that there is the grim five to ten per cent of deaths. He says when we consider all of these things, should not our patients have the benefit of a treatment which seldom fails to relieve? Although electricity frequently fails to cure yet it never kills, never does harm, and never interferes with the success of an operation if one should be decided upon later. Electricity is specially indicated in bleeding fibroids in women approaching the menopause; in all inoperable cases; in incipient fibroids in women over forty years of age; in all bleeding fibroids of the smooth interstitial variety, which have no symptoms but hemorrhage; and in all cases, not accompanied by pelvic pus accumulations, which refuse to have an operation. Generally speaking the patient can be safely given as strong a current as she will bear. This varies from 100 to 200 milliamperes. The time of each treatment should be five minutes for the maximum current employed. The treatments should be given as often as every second day. Dr. Martin says that many of these cases begin to improve almost immediately. The article is a strong plea for the more conservative methods of treating these cases, while it shows clearly that such treatment is often followed with the most brilliant success.

Treatment of Typhoid Fever.

At a meeting of the Medical Society of this city for Jan. 8th, Dr. Sterling Ruffin read a paper on the treatment of typhoid fever. This paper appears in full with a chart, in The Journal for March 21st. Dr. Ruffin treated some of his cases with the Woodbridge method, and it is one of these cases which is illustrated by the chart. This chart shows that the Woodbridge treatment was begun on the fifth day of the disease, when the temperature was 104. On the sixth day the temperature reached 104 4-5, and on the seventh 105. This was the third day of the Woodbridge treatment. On the following day the temperature declined, and on the seventh day of treatment the temperature was down to 101. On the eleventh day to 99, and on the fourteenth day to normal. Dr. Ruffin concludes that while he is not ready, from his limited experience, to make any strong statements in favor of this treatment, yet he believes that if begun early enough it will favorably influence and possibly abort many cases of typhoid fever.

Priority in Woodbridge Method.

In the same number of the Journal is a letter from Dr. Arthur J. Hall of this city, in which he states that prior to 1893 Dr. Hoelscher of Mulheim on the Rhine, reported his experiences with guaiacol carbonate as an intestinal antiseptic in typhoid fever; therefore, Dr. Hall is inclined to believe that while Dr. Woodbridge may be entitled to the credit of introducing this drug to the profession in the United States, yet he may have imbibed his inspiration from prior experiments abroad.

Antitoxin Treatment in 805 Cases of Diphtheria. The Department of Health of the city of Chicago has recently issued a report of the results of antitoxin treatment in 805 cases of true diphtheria. Sixty-one cases were injected on the first day of the disease, and all recovered. On the second day 187 were treated, with a death rate of only 1.60. On the third day 372 cases, with a death rate of 2.68. Of those treated on the fourth day 15.60 per cent were fatal, while of those treated later than this 28.94 per cent died. The average mortality of the 805 cases was 6.46. The death rate under antitoxin treatment, including cases not bacterially proved, making altogether 1,047 cases, was 8.93 per cent. It is certain from this report that antitoxin reduced the death rate from diphtheria during the recent epidemic in Chicago from 50 per cent to less than 10 per cent. The report is one of the strongest in favor of the antitoxin treatment which has yet appeared.

Danger from Antitoxin. The Journal recently contained an account of a death from antitoxin which occurred at Wheelersburg, Ohio. In the family was a mild case of diphtheria. The attending physician administered the usual dose of antitoxin, as a prophylactic, to a boy five years of age. The child was in perfect health when the injection was given, but in five minutes was a corpse. Death was probably due to paralysis of the heart. The serum was fresh, and the physician was familiar with its use. Only three days prior to this sad accident another death from the administration of antitoxin occurred in Cleveland, Ohio. The child had a mild attack of diphtheria, but died one hour after the injection of the antitoxin. Only a few days ago the celebrated Prof. Langerhaus, Medical Director of the Moabit Hospital, in Berlin, announced the death of his child in the public press, by the following: "Our darling Ernest, aged 21 months, died suddenly, in perfect health, after the injection of Dr. Behring's diphtheria serum". This statement was followed by a detailed account of all the circumstances connected with the fatal injection. The serum was given as a precaution, because a servant had diphtheria. Another Berlin physician, Dr. Asch, reported cases, one of which was the daughter of a high Prussian medical official, who was ill for three months, from the effect of inoculation. On the other hand Prof. Brieger, a leading German bacteriologist, while not attempting to explain these cases says, that it is a serious mistake to assert that the serum is dangerous because of such cases. He believes that a normal injection of the serum will never cause death. The Berlin authorities have the case of the child of Prof. Langerhaus in charge, and will institute a most rigid investigation. These are terrible accidents, yet we do not see why they should prevent the use of antitoxin. A remedy which is so powerful for good might be expected to have some power for evil. It is the old question of chloroform. At the first it was declared perfectly harmless. But after a few deaths had been reported from its use, then certain rules were formulated which largely removed danger. Now we know deaths result from the use of chloroform, and yet who would think of abandoning it?

Patronize Home Journals. It seems strange that a medical journal in Atlanta, Ga., should publish the proceedings of the Clinical Society of Maryland, which holds its meetings in the city of Baltimore: while the Medical Journal of Maryland, which is in Baltimore, publishes the proceedings of the Clinical Society of Washington, D. C. It is only necessary now for the NATIONAL MEDICAL REVIEW to publish the proceedings of the Medical Society of Atlanta, Ga., in order to have the circle complete. It is also strange that physicians do not better understand that an article in their home journal will do them a hundred times more good, then if sent to some outside journal. There is only one exception to this, and that is in the case of a writer who has such a reputation that he receives large support from the profession of the whole country.

The Roentgen Rays. We present to our readers with this issue two superior illustrations of the new method of photography. We have seen nothing which compares with the work that comes from the Hamburg State-Laboratory. These photographs originally appeared in The Monist, a quarterly magazine issued by the Open Court Publishing Co., of Chicago. This company also publishes The Open Court. The numbers for February 6th and March 12th, of this weekly contain beautiful illustrations of the X rays. The specimen in the last number was an African dove, photographed after the ordinary method, giving the exterior of the animal; while on the opposite page was the Roentgen photograph, showing the skeleton very clearly defined. We are indebted to the generosity of the publishers of The Monist in allowing us to use their plates for these illustrations. For other photographs, and for an abundance of literature, inquiries can be addressed to The Open Court Publishing Co., 324 Dearborn St., Chicago, Ill.

Transactions of the Medical Society. At the meeting of the Medical Society of this city, April 22, the report of the Committee on Publication of Transactions was adopted with scarcely a dissenting voice. This report recommended the adoption of the proposition made by the NATIONAL MEDICAL REVIEW. In brief, the Medical Society has decided to do three things. First, to publish its transactions, including all papers presented, in the NATIONAL MEDICAL REVIEW. Second, to levy an assessment of $1 on each member of the Society, in return for which said member receives the NATIONAL MEDICAL REVIEW for one year. Third, to appoint a committee of three which shall be known as the Publication Committee. To carry out our part of the work this journal will be increased in size. At least two hundred pages will be placed at the disposal of the Publication Committee during the next twelve months. Those who have already paid subscriptions for Volume V, will have their money refunded. It is probable that this arrangement will begin with the next number of the journal.

In Great Distress. The editor of the official journal of the Anti-Vivisection Society is in great distress on account of the ill treatment of mules. Agents have been again and again sent out to relieve "these patient, hard-working and much abused creatures". In closing, the editor says "We trust that the day of their deliverance is at hand." We have looked over this journal month after month, hoping to find some reference to the cruelty of man to man, or of the great injustice of woman to woman, but our search has been in vain. It is the one cry of the poor mule, the abused cat, and the over-worked canal horse.

Is the Gargle to Go? A number of articles have appeared in our exchanges on this interesting topic. Is the gargle to go? We fill our mouth with the nauseous mixture, throw the head well back, and go to work. We spurt, blow, get red in the face, look wildly at the ceiling, and ten to one that the gargle don't go. We may save one half of it, and deposit it in some large receptacle by our side, but the other half goes—down, down, until it fills the stomach, and takes away the appetite for days to come. There may be specialists in the gargle line, specialists who can gargle for one-quarter of an hour on a stretch, and not lose a drop. Is the gargle to go? Our experience is that after it remains in the front part of the mouth for the fractional part of a minute about half of it goes—on the floor, and the other half goes—into the stomach!

In Unlettered Wagons. Street car advertising evidently pays; at least the advertisements are read. A certain brewing company of this city thus advertises its beer. On the card is the following: "Families supplied in unlettered wagons". The philosopher must pause to consider why it is necessary to add this sentence. Our groceries, dry goods and fuel are delivered in wagons plainly lettered, setting forth the character of the contents and the name of the dealer; but in the case of beer, families are supplied "in unlettered wagons"! Is it a confession that the business is one which must be conducted in secret in order to receive the support of families?

Little Ernest and his Cigarette. Once there was a little boy by the name of Ernest Hart. Some kind friends gave little Ernest work to do on a Medical journal in London. Once little Ernest read that a great man in America, by the name of Dr. Geo. Schrady, the editor of one of the best medical journals in the world, did not think cigarettes were good for little boys. When little Ernest read this he was terribly frightened. He had heard the big men in the office say that whatever this great American editor said was quite likely to be followed throughout the medical world. Little Ernest began to cry for fear he would no longer be allowed to smoke his cigarettes, so he wrote a letter, which was published in the London Medical Journal, in which he made fun of the great American editor, and told him that cigarettes never hurt little boys. Little Ernest said he knew this was true, because he had smoked them quite a while, and he felt pretty well still, only sometimes he was very cross. When little Ernest grows to be a man he will thank this great American editor for giving him such good advise.

In discussing the subject of Albuminuric Retinitis recently, Dr. E. Oliver Belt of this city, presented a number of statistics to show the prognostic significance of this disease. The concensus of opinion was that nearly all cases prove fatal in less than two years. In 419 cases only nine per cent lived more than two years, while 72 per cent died within the first year.

In a late number of the American Gynaecological Journal, Dr. Joseph Taber Johnson reports twenty-six cases of hysterectomy. These were all performed by the Baer method, and there were twenty-five recoveries and one death. In the fatal case, death could hardly be attributed to the operation as it occurred four weeks afterwards and was due to a twist in the small intestine, which Dr. Johnson says might have been relieved by an operation and the life of the patient saved had the diagnosis and operation been made in time.

The new university catalogue of Columbian University brings forth the information that the following named gentlemen have been added to the medical faculty: Francis P. Morgan, M. D., professor of Pharmacology; George N. Acker, M. D., Clinical professor of Medicine; S. W. Glazebrook, M. D., associate professor of Clinical Medicine and Curator of the Museum; G. Wythe Cook, M. D., Clinical professor of Medicine; James Kerr, M. D., Clinical professor of Surgery; J. W. Bovee, M. D., Clinical professor of Gynecology.

According to a Baltimore paper "One of Baltimore's prominent doctors" who has been in practice for eleven years will make professional calls either night or day for 29 cents a visit. This is getting business down fine. There is a ring about the 29 cents which makes you think of the 99, the 1.98 and the 4.98 articles which are so bewitchingly displayed in the windows of our merchants.

Practical Medicine, for April, contains original articles by Drs. Jno. Winter, J. A. Stoutenburg, J. R. Wellington and Walter Reed, and the May number contains an original article by Dr. E. O. Belt.

COMMUNICATIONS.

To Inflate the Ear.

There appears to be some misunderstanding about my method of using the vaporizer bottle to inflate the ear. Perhaps the following description will make this more clear than in my last communication. I first gave the method of forcing compressed air through the Eustachian catheter, by attaching it to the air receiver by means of a piece of rubber tubing, extending from the catheter to the nozzle of the cut-off. I also stated that medicated vapors can be applied in the same way. A more detailed description of accomplishing this is as follows: Take a Universal or Globe vaporizer bottle and cut off the rubber tubings until they are only about two inches in length. Have two pieces of rubber tubing, two feet long, and ⅛ of an inch in diameter. Fasten one end of each of these pieces by rubber cement to each of the short pieces of the vaporizer bottle. As the long pieces of tubing are less in diameter than the tubing attached to the bottle, so the ends of the long pieces must be cemented within the other tubes. Then slip the free end of one of the long tubes in or over the Eustachian catheter, and also slip the free end of the other tube over the nozzle of the cut-off. In this way great pressure can be made by forcing the vapor through the Eustachean tube to the tympanic membrane.

S. B. Muncaster.

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Alumni Association of the University of Maryland.

A preliminary meeting to organize a Washington branch of the Medical Alumni of the University of Maryland, of whom some thirty or more reside within the District of Columbia, was held lately at the residence of Dr. G. Wythe Cook. The object of the meeting was to promote solidarity and good fellowship, which unhappily does not prevail to the extent it should in a profession that is eminently humanistic.

Among the veteran graduates of the University, who have achieved success as practitioners, are Dr. Louis Mackall of Georgetown, and Dr. Nathan Smith Lincoln of Washington. Others of high repute in general practice, are Dr. Charles Granville Stone, Dr. T. B. Hood, Dr. Sinclair Bowen and Dr. J. W. Bayne. Besides these may be mentioned a number of eminent specialists, who have supplemented the training of their alma mater by foreign study: notably Dr. J. Ford Thompson, distinguished in surgery; Dr. Irving C. Rosse, a neuologist with an international reputation; Drs. T. Morris Murray and Franck Hyatt, as laryngologists; Dr. E. Oliver Belt, in ophthalmology and otology, and Dr. I. S. Stone, in abdominal surgery. In addition a number of younger men coming to the front are keeping up the traditional reputation of the celebrated old school that has given them professional training.

ORIGINAL ARTICLES.

TREATMENT OF PNEUMONIA IN THE CHILDREN'S HOSPITAL, WASHINGTON, D. C.

By Samuel S. Adams, M. D.

The treatment of the different forms of pneumonia in the Children's Hospital is so nearly uniform, except in minor details, that its management under my colleague, Dr. George N. Acker, and myself may be described as a single plan.

Croupous Pneumonia.—Absolute rest in bed is enjoined and great discretion is exercised in disturbing the patient for physical examinations. Frequent examinations of the chest are avoided, thereby saving extra labor to the over-worked heart. If the pneumonia area is mapped out at first, and there is no reason to believe the inflammation has extended, nothing is to be gained by over-zealous investigations; on the contrary, change of posture for purposes of auscultation and percussion will frequently tax the patient's strength and may induce syncope.

The diet is restricted to milk or animal broths in suitable quantities, and is given every two hours during the day and every three hours at night. Cool water is also given at frequent intervals, but cracked ice is forbidden.

The cotton jacket, with or without oiled silk, is worn throughout the attack. If there is acute pain and surface congestion, dry cups are applied over the inflamed area, followed by hot poultices and a jacket. The management of the fever depends very much upon its nervous manifestations. If the temperature does not exceed 104 degrees F., with a daily range of one or two degrees, and there are no evidences of cerebral irritation, no measures are taken to reduce it; but if it remains continuously high and is attended with delirium or coma, my colleague gives aconite, spirits of nitrous ether and liquor ammonii acetatis, together with cold water sponging, while I depend upon frequent sponging with alcohol and tepid water, or the graduated cold bath. Neither of us have used the cold pack or ice poultice. In some cases the graduated bath alone keeps the temperature within safe limits, controls the delirium and stimulates the heart.

The internal antipyretics, especially the synthetical preparations are scrupulously avoided, but quinine is sometimes administered by the mouth, skin or rectum before the third stage.

The heart's action is carefully watched, and stimulation is begun at the first sign of weakness. Ammonium carbonate and whiskey in alternating doses are judiciously pushed. Later, when danger is imminent and greater stimulation is imperative, nitroglycerin, strychnia and camphor are ordered. When cyanosis becomes severe, hypodermic injections of nitroglycerin, strychnia and sometimes ether are pushed. The marvellous effect of nitroglycerin in young children almost moribund has often been noted.

We have not found that relief from inhalations of oxygen which would justify its use in this institution. The so-called expectorant drugs and syrups are not given, with the exception of ammonium chloride, which is sometimes prescribed after the crisis.

During convalescence bitter tonics are sometimes ordered, but seldom if the patient will take enough nutritious food. In suitable weather, the patient's condition permitting, exercise in the open air for an hour or two will hasten recovery.

Broncho-Pneumonia. — The general plan of treatment in this form differs but little from that practiced in the croupous. In a large proportion of cases the amount of lung structure involved is so slight as to require little more than rest in bed, liquid diet and the cotton jacket. In those cases in which the inflammatory prrocess extends to areas of considerable extent, more active measures are pursued. Counter-irritation is produced by mustard pastes, turpentine stupes, or camphorated oil applied to the chest, but never to the extent of blistering.

Hot flaxseed meal poultices are indicated in those cases in which pulmonary congestion is intense or general. The measures recommended above for the reduction and control of moderate and high temperatures are applicable, and are used in this disease. Ammonium carbonate is given as a stimulant and expectorant. Stimulants are cautiously ordered, but their full physiological effects are seldom required. Here, too, the great value of nitroglycerin as a rapidly-acting and powerful cardiac stimulant is clearly demonstrated. During convalescence the management is much the same as in croupous pneumonia, except that cod-liver oil is almost invariably ordered.

Hypostatic Pneumonia.—The general plan of treatment in this form is frequent change of posture and free stimulation. The value of hypodermatic injections of strychnia, nitroglycerin and ether in this condition justifies their administration to the fullest degree of toleration.

THE CARE OF CHILDREN'S EARS.*

By E. Olivfr Belt, M. D., Washington, D. C.

In this age of bacteriology, when laboratory research claims the attention of the medical world the above subject no doubt sounds prosy and common place. With no suggestion of germicides, tuberculin, antitoxin or X rays such a title will hardly attract a passing thought, and yet while we are soaring so high in the realms of serum-therapy, animal extracts, etc., it may be well for us to descend occasionally and consider, for a few moments, some of the common, every day ills of life and their simple every day remedies. That ordinary ear troubles are very frequently neglected, and their seriousness over looked by the busy practitioner is shown by the great number of cases of deaf-mutism, the result of acquired and preventable deafness, or the cases of otorrhœa, which come to a specialist with a history of having existed for several years. While it is of great importance to watch our ports, and keep epidemics of cholera and yellow fever from gaining a foot-hold among the masses of our people, may it not be well for us to keep an eye to the welfare of the individual that he may at least start life with as few handicaps as possible.

The few avenues to a successful life open to a deaf mute, and the great obstacles and difficulties with which he has to contend in his struggle for existence are apparent to all, but the simple impairment of hearing is frequently a bar to success in many vocations, and a much greater handicap than we might at first thought suppose. For instance, in our own profession, what an imperfect knowledge of the condition of the heart and lungs we would have if the great aids of auscultation and percussion were denied to us. In the legal profession at what a great disadvantage a lawyer would be if he could not hear the testimony of witnesses on the stand, or the argument of the opposing counsel. In the ministry what poor penitent would like to confess his sins at the top of his voice, or ask advice and guidance of a deaf spiritual adviser on subjects intended only for his ear? But it is not only in these professions that deafness proves a handicap. It is very annoying at least in every vocation, and is a bar to entrance into the army or navy, and such occupations as telegraphy, stenography, phonography, teaching, railroading, storekeeping, etc. There are in the United States about 50,000 deaf mutes, or one in 1,200 of our inhabitants, and the number of those suffering with impairment of hearing sufficient to interfere with the routine duties of life would no doubt run into the hundreds of thousands. All of the cases of deaf-mutism are such from birth, or are acquired before the seventh year, and a great number of the cases of impaired hearing are acquired during childhood, so it seems that the care of children's ears may well be worth our serious consideration, for many of these troubles can be cured or prevented.

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*Read before the Clinical Society of Washington, D. C.

We will first consider deaf-mutism. There is quite a diversity of opinion in regard to the proportion of congenital to acquired cases, but 50 per cent of each is probably a good estimate. Of the congental cases Politzer says "the most frequent causes are: heredity, including direct transmission from the parents as well as indirect transmission from forefathers and marriage between blood-relations." According to Hartmann's investigations direct transmission is rare, while indirect transmission occurred in 68 per cent of his cases. Then for the prevention of congenital cases we should advise against the marriage of those closely related and of those who have deaf-mute relatives. Of the acquired cases cerebro-spinal-meningitis is the cause of a large number of cases, which unfortunately cannot be very successfully treated, though counter-irritation in the way of blistering behind the ears is recommended in addition to the usual constitutional treatment and attention to the middle ear. Typhus, scarlet fever, diptheria, mumps and measles are the other principle causes, and these usually produce deafness by the extension of inflammation from the nose and throat through the Eustachian tubes to the middle ear. Exposure to these epidemics should be avoided especially before the seventh year, and in every one of these acute infectious diseases we should be on the lookout for ear complications. Mothers should be instructed to watch for signs of ear-ache, such as the sharp cry peculiar to this trouble, putting the hand to the ear, etc. Also to watch for discharge from the ear, especially if there is sudden subsidence of the pain, which usually indicates rupture of the drum membrane. At the same time the nose may be stopped up, and there may be other indications of a general coryza.

In the treatment of acute otitis media relief from the ear-ache is usually the first symptom needing our attention. We have no specific for this, as the pain is from pressure of a swollen mucous membrane in the middle ear, or from pent up pus in the same cavity and cannot be cured until this pressure is relieved. However, hot applications and anodynes lessen the pain and should be used. Heat may be applied by hot bean-bags, hot water bags or the Japanese hot box, and the solutions poured into the ear should be as warm as can be borne. Menthol grs xx to 1 oz of olive oil, may be used, or a solution of atropia, morphine and cocaine, about ten drops in the ear. Of course the latter should not be used after a discharge has began, as the solution may go through the perforation into the throat and produce poisoning. One or two leeches in front of the tragus will often give prompt relief.

The tympanic membrane should be examined and if it is bulging from the presence of pus it should be punctured at the most prominent part, or in the lower posterior quadrant, if this is not done the membrane frequently ruptures, and the pus escaping, relief is obtained from the pain. We now have a suppurative otitis media, and the escape of pus is to be encouraged by spraying the ear with warm water, or warm boracic acid, or bichlorid solution, two or three times a day or oftener if the discharge is profuse. In the meantime cathartics should be given, and the nose and throat sprayed and the patient kept warm and comfortable in doors. The ear should also be gently inflated by means of the Politzer air bag, which aids in cleansing the ear and opening the Eustachian tube. Under this simple treatment nearly every case will be cured in a week or ten days, and yet Dr. MacCuen Smith says "there are annually dying in the United States probably 4,000 of her inhabitants from cerebral abscess, the result of otorrhœa." That is certainly a reflection upon our profession, and we should not be satisfied until the occurrence of all preventable diseases is reduced to a minimum. Very often, however, the attention of the family physician is not called to a case of otorrhœa until it has become chronic or offensive, and he is not responsible for its chronicity. The treatment of chronic otorrhœa is much the same as the acute, that is, cleanliness is of first importance, but after cleansing with such antiseptic solutions as the bichlorid, boracic acid and hydrogen peroxide, some prefer what is known as the dry method, that is the insufflation of boracic-acid powder, which is allowed to remain in the ear until it becomes moist, when it is washed out with one of the above solutions, and replaced by fresh powder and so on. In some of these old cases granulations and polypi are found, these usually require the attention of a specialist, but instillation of alcohol may be tried for the granulations; the polypi must be removed.

Mastoid complications had better be referred to a specialist without delay.

One of the most common cases of impaired hearing is chronic non-suppurative otitis-media. This is invariably the extension of a catarrhal conditions of the nose and throat, and usually comes on so gradually that ear trouble may not be suspected. The child may be considered stupid and inattentive, when in fact, it is dullness of hearing. The hearing of children should be frequently tested by parents; with their eyes closed see if they can hear a watch 30 or 40 inches away. When the hearing of either ear is below normal it should be investigated. Especially should this be done if the child suffer at all with nasal catarrh, or occlusion of the nostrils and its consequent mouth breathing. The hearing is worse when the patient has a bad cold. The treatment of this trouble consists in correcting the nose and throat trouble primarily and in medicating and inflating the middle ear. I will not consider the treatment of nasal catarrh in this paper, but will recommend in conjunction with it the following method of inflating and medicating the middle ear. Instead of Politzer air-bag I prefer the globe nebulizer. The air-bag frightens a child and there is some danger of rupturing the membrana tyympani, by too forcible propulsion of air through the Eustachian tubes. With the nebulizer the vapor can be medicated and the middle ear very gently inflated, and children will submit to it very readily. This should be used two or three times a week. Children sometimes complain of ear-ache when there is no congestion or inflammation apparent about the middle ear, this may be from decayed teeth; so in such cases the teeth should be examined and treated if found to be defective. Ceruminous deposit is another frequent cause of deafness, however, this is very readily remedied by a syringe and warm water, though it is sometimes necessary to soften the wax by filling the ear with a solution of bicarbonate of soda at bed time. It can usually be easily removed the following day. The ears should be washed only with warm water, and no cold solution should be used in the ear. The physician ls frequently called upon to remove foreign bodies from the ear, such as insects, grains of wheat, corn, beans, slate pencils, etc. Sweet oil or glycerine will usually kill or quiet an insect, after which it can be removed like any other foreign body, that is by means of a syringe and warm water. I will close this paper with the admonition to the general practitioner never to use a probe, ear-spoon or forceps in these cases, as great injury has been done with these little instruments, while contending with a struggling child. Foreign bodies sometimes remain in the ears for years without doing injury, so there is no need of haste, excitement or forcible methods in dealing with them.

REPORT ON MORBIFIC AND INFECTIOUS MILK.

S. C. Busey, M. D., and G. M. Kober, M. D., Washington, D. C.

Through the kindness of Dr. G. M. Kober we have received advance sheets of this report to the health officer of Washington.

It is a thorough and most important piece of work, the authors reviewing the entire subject and adding the most complete bibliography yet published.

The conclusions drawn by the authors are of the greatest interest and of vital importance to the general public.

When we recall, say the authors, the

many ways by which milk may acquire morbific properties, we see the necessity for the proper protection of the public by placing dairies, the herds, and the milk market under a strict sanitary control. The owner of a dairy should be required to subject his stock to frequent inspection by a competent veterinarian, and all animals found to be suffering from diseases like tuberculosis, erysipelas, anthrax, pleuropneumonia, foot-and-mouth disease, septic and other fevers, specific enteritis and other intestinal disorders, rabies, tetanus, garget and other inflammatory conditions of the teats and udder; and also those animals which are being treated with medicaments for any or all causes, all of which are disqualified from producing a pure or sound milk, should be excluded. The milk of animals five days before and after parturition is likewise unfit for human consumption.

The pasturage of the animals should be looked after with the greatest care; the animals should be groomed daily, and before milking the teats and udders should be thoroughly washed with water previously boiled. The necessity for this has been repeatedly pointed out and is of special importance, since we consider the presence of excrementitious matter and fæcal bacteria in milk next in danger to the presence of disease germs. The requirements of cleanliness apply with equal force as to the milkmen and as to their persons and clothing, and they should be requested to keep their fingernails free from dirt and to make a careful toilet just before milking. All persons engaged in handling the milk should be free from disease. No family ever thinks of employing or keeping a cook afflicted with a communicable disease, and yet not the slightest restriction is placed upon, nor a question asked about, the persons who handle our milk supply, which we know affords an excellent culture medium for disease germs.

A most excellent suggestion of the authors is that the products of each ten cows should be mixed, not only to insure uniformity but also to diminish the danger of transmitting disease germs in concentrated doses from any one animal.

Absolute cleanliness, of course, should be observed in transferring and bottling the milk, and the retailer should be duly registered and be required to furnish the health officer with a list of customers. These lists should be arranged at that office on the "index-card system," so that the simultaneous occurrence of infectious diseases in a number of families supplied by the same milkman may be promptly discovered and the mischief checked.

On the subject of "Milk Standards" the authors conclude, after an examination of the best data on the subject, that we have a right to expect a milk containing 12.52 per cent. of total solids, composed of 8.75 per cent. non-fatty solids and 3.75 per cent. fat, and also that the legal standards should be modified accordingly.

The official standards in force vary from 13 to 12 per cent.; it seems to us that the standard should be at least 13 per cent., as in Massachusetts.

The authors go on to say that while it would be manifestly unjust to condemn a milk as adulterated when it has more than 87.5 per cent. water, on the other hand the adoption of a minimum standard would result in the sale of a very large quantity of adulterated milk, which, apart from diminishing the nutritive value of the milk—a matter of great importance in infant-feeding—is often the immediate cause of transmitting disease germs by the addition of infected water. In the opinion of the writers all this can be prevented and milk of uniform standards can be obtained by encouraging the establishment of milk depots like the Walker-Gordon laboratory of Boston. In the management of this establishment farm and herd are under the absolute control of the laboratory, and are used for laboratory purposes only; the cows, their food, their stables, their pasture, and their drinking-water are subjected to the frequent, paid, critical examination of the best veterinary surgeon that can be procured in Boston. The dairymen dress in white suits before milking, each having previously had a bath. The cows are milked into glass pails, and the milk, after being aerated and cooled to about 44 degrees F. in a tank of ice and water, is delivered at the laboratory in

Boston within four hours of the milking.

At the laboratory a ventilating engine keeps up a constant change of air, and a hose keeps the enamelled brick walls and stone floors wet to prevent any remaining dust from contaminating the milk while it is being "modified." The whole milk, after being "Pasteurized," passes through a Stockholm separator which makes sixty-eight hundred revolutions a minute, yeilding a cream of an almost constant sixteen per cent. fat. It not only does this, but it removes all dirt that from unavoidable causes has gained access to the milk, thus yielding a clean, skimmed milk, practically free from fat (only 0.13 per cent. remaining).

Such milk laboratories would accomplish the following objects:

(1) The source of the original milk would be closely controlled.

(2) The producer would be paid according to the quality of the milk.

(3) The milk would be Pasteurized before it reached the consumer.

(4(The milk would be sold under uniform standards of "full" and "skimmed" milk, and its sale perfectly controlled by the sanitary authorities.

(5) The milk could be modified in the laboratory according to the wishes of the consumer, and for invalids and bottle-fed children according te the formula of physicians, with a justice and accuracy not possible by any other method.

(6) Condensed milk preserved in glass bottles is a special necessity during the prevalence of blizzards or other interruption of the milk traffic, also upon long journeys, and, since a higher standard than the present is demanded for correct infant-feeding, the milk could be modified by the addition of sugar of milk and thus form the best possible basis for condensed milk of a proper standard.

Finally, we sincerely trust that this excellent report will cause an immediate and widespread agitation throughout America for proper legislation as to the milk supply and the establishment of "milk laboratories" and of milk-cattle inspection.

We really owe Drs. Busey and Kober a debt of gratitude for this work.—Editorial in the Medical Record.

DANGERS WHICH THREATEN THE USEFULNESS OF COD-LIVER OIL.

By John T. Winter, M. D., Washington, D. C.

Having for many years been a firm believer in the curative properties of cod-liver oil, I have of late looked with great anxiety on efforts which tend to impair its usefulness. I can see at least three great dangers. Unless these are destroyed, the therapeutic value of cod-liver oil will be an uncertain factor.

The First Danger. The first danger is the result of a modern theory that a part equals the whole! We all know that cod-liver oil is a most complex body. Its chemical analysis reveals the presence of many constituents. These have been called the alkaloids, or the "active principles" of the oil. They exist in peculiar combination with the fat, and are with difficulty separated from it.

To break up cod-liver oil into these several ingredients, is to change its character altogether. I do not believe it is possible to take any of these constituents from the oil without either impairing or totally destroying the therapeutic properties of the parts taken or of those remaining. There is no doubt but the alkaloids of cod-liver oil are valuable; they are valuable, however, because of the peculiar combination as it exists in the oil. To take all of the oil, or fat, from cod-liver oil, and then claim that the alkaloids are useful as a fat-producing food, is just as reasonable as it would be to administer iodine, bromine or phosphoric acid to a patient as a food! Persons can live on cream and on other fatty foods, provided their digestive powers can properly care for so rich a diet. But they could not live on iodine or any of the alkaloids or active principles of cod-liver oil, or on all of them combined. To use only the alkaloids of cod-liver oil, is to employ a remedy without value as a fat-producing food. If this be not true, then let us abandon the oil entirely and rely upon other sources for our iodine, bromine, etc.

This new theory of substituting a part for the whole is, to many minds, the greatest danger which threatens the usefulness of cod-liver oil. No matter how ingeniously the alkaloids may be combined with wine or other liquids, the results of the past will not be verified by this substitution, and the profession and laity alike will distrust it. If they were only skeptical regarding these new preparations, the case might be different. But having been taught that cod-liver oil is valuable only for its alkaloids, then the failures are charged against the oil as a whole, instead of against a part.

It must be laid down as a rule, founded upon scientific study and verified by scores of years of observation, upon hundreds of thousands of cases, that the whole oil must be used if the best therapeutic results are desired.

THE SECOND DANGER. In his "Practical Therapeutics," Hare says: "One of the emulsions widely advertised in the street cars of Philadelphia as 'tasteless' has been shown to contain no oil at all." He adds also that, "Oil devoid of smell is probably devoid of medicinal value, as all the peculiar properties have been purified out of it." Patients invariably object to the odor and taste of raw cod-liver oil, so it is but natural they should be pleased with these "odorless and tasteless" preparations. That these preparations are in use at all is probably due to two reasons: (1) Only a few physicians are aware of the fact that they contain no cod-liver oil whatever; and (2) the laity has no reason for doubting that the mixture is other than what it pretends. The physician and patient have every right to expect that a "preparation" of cod-liver oil contains that oil. It is the most cruel kind of deception to thus impose upon those who place all their hope for health on this valuable remedy. As it is not present, so the results are not obtained. Therefore, cod-liver oil is put down as of no value whatever in such cases. Even if the deception be discovered, it is generally too late for the oil to accomplish good, at least to its full amount.

THE THIRD DANGER. The third danger is a universal one, and is of great importance. A few words of explanation are necessary to understand it.

Without doubt the great bulk of cod-liver oil is taken in the form of an emulsion. Reasons for this are evident. A good emulsion has little of the fishy odor and taste, although these are always present. An emulsion is more easily borne by the stomach and is not so liable to cause eructations of gas.

Again, emulsions are more pleasant to the taste than are the raw oils. Therefore we find the majority of physicians prescribing them, while the laity undirected by physicians, almost invariably ask for them.

It is an unfortunate fact that there is no fixed standard for cod-liver oil emulsions. We find one pharmacist offering an emulsion of his own manufacture at a certain price, while his competitor just across the way is offering one at a third less. But the former gives thirty per cent of oil, while the latter may give but ten, yet both preparations are "Emulsions." No physician should prescribe an "Emulsion" of cod-liver oil unless he knows the preparation contains cod-liver oil, and in definite proportions. In prescribing any "Emulsion" or "Preparation" of cod-liver oil simply because it is an emulsion, or preparation, is to express as much confidence in the curative properties of the label as in the drug.

The third danger, therefore, is one due to unreliability and uncertainty. It is easily overcome by the exercise of ordinary care that only those preparations be ordered which are reliable, and of definite composition.

It is because I believe cod-liver oil to be such a valuable remedy that I call attention to some of the dangers which threaten its future usefulness. But they are dangers which we are abundantly able to remove, and which must indeed depart without effort if we keep clearly in mind the facts upon which cod-liver oil rests its reputation.

BOOK REVIEWS.

DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM, ANUS AND CONTIGUOUS TEXTURES. By S. G. Gant, M. D., Professor of Diseases of the Rectum and Anus, University and Woman's Medical Colleges, Kansas City, Mo. With two chapters on "Cancer" and "Colotomy" by Herbert William Allingham, Surgeon to the Great Northern Hospital, London. One volume, Royal Octavo, 400 pages. Illustrated with 16 full-page Chromo-Lithographic Plates and 115 wood-engravings in the text. Extra cloth, $3.50 net; Half-Russia, gilt top, $4.50 net. The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street, Philddelphia.

This volume contains two chapters which are entirely new for a work of this kind. One is on railroading as an etiological factor in Rectal Diseases, and the other on Auto-Infection from the Intestinal Canal. The subject of auto-infection is most interesting to the general practitioner. The old advise that in order to live long and be happy we must "Trust in God, and keep the bowels open", is another way of putting the question of auto-infection. The illustrations are all new and original. The work is carefully classified, and is up to date in every respect. The are a number of handsome chromo-lithographic plates of unusual excellence. It is a comprehensive, complete and concise treatise.

DAME FORTUNE SMILED: The Doctor's Story. Cloth, $1.25; paper, 50 cents. The Arena Publishing Company, Copley Sq., Boston, Mass.

This story is a retrospect for the year 1900. The doctor shows the reasonableness of giving during life. When a man has acquired a fortune he should devote at least a portion of his time and wealth to the betterment of the community in which he lives. This volume suggests to over-worked men and women a correct and feasible plan for the equalization of capital with labor. It is a practical solution for those who regard their wealth as a public trust. While the author modestly makes no pretense of literary excellence to his narrative, yet the story is written in strong language, and is remarakably free from wearisome detail.

DIETS FOR INFANTS AND CHILDREN IN HEALTH AND IN DISEASES. By Louis Starr, M. D., Editor of the "American Text Book of the Diseases of Children". Price $1.25. W. B. Saunders, Philadelphia. 1896.

This consists of tables giving rules of feeding, and other valuable information. There are also a large number of sheets partly filled, and the method of completing the same is illustrated by a number of examples. Full directions are given for the preparation of diluents and food.

The National Formulary. Revised edition. This is a supplement to the National Dispensatory, the fifth edition of which was but recently from the Press. It contains the full working formulæ of about 500 preparations of approved value. The supplement now forms a part of the National Dispensatory, the price of which is, in cloth, $7.25; leather, $8.00. Lea Brothers & Co., Philadelphia.

Coca and its Therapeutic Applications. By Angelo Mariani. Illustrated. Third edition. J. N. Jaros, 52 W. Fifteenth Street, New York. Copies of this interesting volume can be secured by addressing the publisher.

The Virginia Medical Semi-Monthly is at hand. Probably because we liked the old so well is one reason why we find it more difficult to take on the new. But it occurs to us that the change of the monthly has not been an improvement; certainly not in appearance.

The Popular Science Monthly for May contains the usual number of interesting articles. One of the most interesting is that by Dr. Jas. Weir, in which he describes the peculiarities of genuine pygmies, who have villages in the south. They were brought here from Africa as slaves, and the race is still distinct.

The Medical Council is a new journal edited and published by Dr. J. J. Taylor, who so long edited the Medical World. We had a very pleasant call from Dr. Taylor a few days ago, and we were glad to learn that his new venture starts out with most excellent prospects.

We are in receipt of a handsome price list from Parke, Davis & Co. It tells of still further progress by this progressive and scientific house. New branches have been opened at Baltimore and New Orleans. Besides being a price list, the book contains much valuable information of a general character. Any physician can obtain a copy by asking for it.

THERAPEUTIC NOTES.

Europhen. A case of leprosy is reported cured by the use of inunctions of an oily solution of Europhen.

Gouty Diathesis. Dr. C. J. Rademaker reports cases of extreme pain in the chest, located at the end of the trachea. The diagnosis was made of gout. Henry's Tri-Iodides made a complete recovery in a few days.

Cure for Eczema. Dr. E. B. Graham writes to the Walker Pharmacal Co. that a patient of his was cured of eczema universalis by the free use of Pineoline. Relief began at once and uninterrupted improvement followed.

Loretin. Dr. Herbert Snow, Surgeon to the London Cancer Hospital, says that Loretin has proved an ideal antiseptic and deodorant without a single draw-back. Once used no surgeon will thereafter resort to iodoform.

Benzosol. Recently Dr. J. Blake White read a paper before the New York Medical Surgical Society, in which he set forth the great advantages of Benzosol over guaiacol and creosote. This new drug is a Bensoate of Guaiacol.

Weak Heart. The importance of using cactina pillets in all acute diseases is evident when we know that acute affections weaken the heart by exhausting nervous energy, and interfering with nutrition and lowering the general tone of the system.

Pure Bromides. The commercial bromides are likely to have an abnormal amount of chlorides as an impurity. In Peacock's Bromides there is not only purity, but palatability. Each fluid drachm contains 15 grains of the chemical pure salts.

Substitute for Opium. Dr. F. P. Norbury writes from the Illinois Central Hospital for the Insane, that he now uses antikamnia in preference to opium for the relief of pain. The former is more magical, more persistent, and is not followed by digestive disturbances.

Recent Awards. We are in receipt of the notice of a number of awards recently given M. Mariani, for the high standard and excellence of his coca preparations. A number of professional athletes, and bicyclists testify to the tonic properties of the well known Vin Mariani.

To Remove Post Mortem Odors. The Massachusetts Medical Journal contains an article which says that the best way to remove from the hands the odor acquired in making a post mortem examination is to wash them thoroughly in warm water and soap, then apply listerine, full strength.

Cholera Infantum. Dr. J. M. Duncan of Kansas City, Mo., writes an article to the Medical Brief, showing the great benefits from Bromidia in cholera infantum. It insures quiet and sleep. He says he has saved the lives of more children, of all ages, with Bromidia than any other remedy he has ever used.

Cystitis. Retention of Urine. Dr. C. N. Brown of Webster, W. Va., says that Sammetto is the only remedy he has ever found, which will relieve the resulting affection of the enlarged prostate. Dr. A. C. Formen of Bayonne, N. J., reports that he finds Sammetto almost a specific for cystitis and retention of urine.

A New Convert. Dr. L. G. Hanley of Buffalo, writes a very interesting letter to the McArthur Hypophosphites Company, in which he gives the history of a case of sloughing of skin from a burn which would not heal, neither was grafting successful. After taking the hypophosphites the grafts grew well, and the case completely recovered, hence the doctor says he is now a convert to McArthur.

Transactions of the American Pediatric Society. Seventh session, held at the Virginia Hot Springs, 1895. Edited by Floyd M. Crandall, M. D., and reprinted from the Archives of Pediatrics.

We are indebted to Dr. S. S. Adams of this city, for the above copy.

THE

NATIONAL MEDICAL REVIEW.

CHARLES H. STOWELL, M. D.,

EDITOR AND PUBLISHER.

VOLUME VI.

JUNE 1896 TO JUNE 1897

WASHINGTON, D. C.

MAY 16 1898

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TO
APPLICATION

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THE

NATIONAL MEDICAL REVIEW.

VOL. VI. WASHINGTON, D. C., JUNE, 1896. NO. 1.

CHAS. H. STOWELL, M. D., EDITOR.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

PUBLICATION COMMITTEE:

W. W. JOHNSTON, M. D., GEO. M. KOBER, M. D., JAS. D. MORGAN, M. D.

At the meeting of the society for April 22d, the following report of the Committee on the Publication of the Transactions was presented.

WASHINGTON, D. C., April 22, 1896.

The Medical Society having decided to publish the Transactions the Committee has considered the methods of publication as directed by the Society.

Two plans were considered by the Committee:

1. The publication of an annual volume which will require an expenditure of $500.00 to $800.00, according to the size of the volume—the estimated number of copies being 500 bound in paper covers.

The required sum to be raised by an assessment of $2.00 on each member in addition to the $3.00 assessment already levied.

2. The publication of the Transactions in a Medical Journal. As the report of the Publication Committee has already shown that such a plan is not feasible, the journals to which application had been made declining to publish the Transactions, the Committee had one proposition only. This is embodied in the following letter. (See Accompanying Letter.)

In considering this proposal two plans have been suggested:

1. An additional assessment by the Society of $1 on each member, the Society to distribute the Journal and to assume the obligation to the REVIEW. Money already subscribed by members will go to the credit of this assessment.

2. Each member to subscribe to the Journal—the subscription being in the nature of an obligation, so that the required amount may be subscribed.

3. To vote from the Treasury a sum sufficient—about $300.00—for the publication in the REVIEW, each member to be supplied with a copy.

In comparing these two plans—publication of a volume and publication in the NATIONAL REVIEW—the Society will be able to decide as to which is to be preferred. The difference in cost will be one half or more than one half less if the REVIEW is selected. The cost to each individual will be $1 instead of $2.

Of the different plans for raising the money for publication in the REVIEW, the Committee gives preference to that of the assessment of $1 on each member, the Society guaranteeing the satisfactory publication of the Transactions through a Committee and the distribution of the journal to each member.

It is thought that the subscription of each member to the REVIEW could not give an assured sum, while the voting of a lump sum from the Treasury, without assessment, would we fear deplete the Treasury and interfere with the admirable projects of the Treasurer.

If either of these plans is adopted, the Committee recommends the appointment of a publication Committee of three members to be appointed by the President, who shall have full power to publish or not to publish any paper read.

Each member shall be required to hand in a typewritten copy of his paper at the date of reading.

In case of a failure of the plan of publication in the REVIEW, the further publication can be suspended at any time by making a pro-rata payment.

W. W. JOHNSTON,
S. S. ADAMS,
C. H. KLEINSCHMIDT,
J. H. BRYAN,
Committee.

WASHINGTON, D. C., April 4, 1896.

W. W. JOHNSTON,
Chairman Com. Publication
of the Medical Society of D. C.

DEAR DOCTOR: Until within a few days I had not thought it possible for me to make any proposition to your Committee concerning the publication of the proceedings of our Medical Society in the NATIONAL MEDICAL REVIEW. Recently, however, a plan has suggested itself which I here offer as a possible solution of the problem.

I will place at the disposal of the Medical Society sixteen pages of the NATIONAL MEDICAL REVIEW each month, with enough extra pages during the year to make the total of two hundred pages annually.

A careful computation shows that these two hundred pages are equivalent to over four hundred such pages as are found in the Virginia Medical Monthly for instance. They are equivalent to three hundred and twenty-five such pages as are found in the Brooklyn Medical Journal. This is because of the large size of the page, and the style of type used in the NATIONAL MEDICAL REVIEW. It would appear that two hundred such pages as the NATIONAL MEDICAL REVIEW (or four hundred such pages as the Virginia Medical Monthly) would be sufficient to cover all the proceedings of our society which the committee might think best to publish.

The M. S. for these two hundred pages must be furnished entirely by persons representing the Medical Society, and the Editor of the REVIFW must not be in any way responsible for them.

To carry out this plan, of course it will be necessary to enlarge my journal. I shall plan to devote eight of the pages already issued regularly to the society, thus requiring only an additional eight pages. As nearly as can be figured at the present time this will cost an excess of $300.00 a year over my present expenses. In return for this additional expense I would ask that each member of the Medical Society subscribe for the National Medical Journal at the regular price of $1 per year. As the postage is 24 cents a year, so the net profit on each subscription is but 76 cents, (although I am inclined to think with an increase in size there will be an additional cost of postage per year on each copy). Taking the number of the members of the society at two hundred and seventy, the net profits from the subscriptions to me will be about $200. It must be remembered, however, in this connection that already at one time or another I have had nearly every member of the society on my subscription books, therefore, even this $200 could scarcely be called a net gain to me.

Provided your committee and the society adopt this plan, probably nearly every member would send in his subscription. However it would be necessary that the society become in some way responsible for these subscriptions. In addition to this I presume your committee would think best to ask the society to subscribe for about fifty copies of the journal in order that the same could be bound at the end of the year, and be at the disposal of the said society.

From this rough estimate it is seen that while the NATIONAL MEDICAL REVIEW is at an additional expense of $300 a year the way is clear to receive back of this something like $250. I would very cheerfully give the balance for the privilege of publishing the proceedings.

A review of this proposition shows that the society can get its proceedings published to the extent of about 350 or 400 pages of ordinary book matter *prac-*

tically free of cost: For it is presumed that each member would subscribe to the journal, and it is also presumed that under any circumstances the society would desire at least fifty copies of its proceedings for preservation, exchange, etc. In addition to this it insures that each member of the society has a complete record of the proceedings. Additional advantages are that already the NATIONAL MEDICAL REVIEW goes to nearly every physician in the District of Columbia, while the Medical Colleges of the city are gratuitously supplied with a large number of copies. One result of this must be that local interest will be excited in behalf of the Medical Society by those not connected with it, while the 70 or 75 per cent who do not attend the meetings, on an average, will be incited to renewed activity by seeing the transactions.

It might be added that there are certain details about such an arrangement which it is useless to discuss here unless the general proposition is, or is likely to be accepted. It might also be added that should the society desire more than these two hundred pages during the year they can be furnished at exactly cost. And it might further be said that if this general proposition strikes your committee and the society favorably, the NATIONAL MEDICAL REVIEW stands ready to make any minor concessions which shall be in the interests of the Medical Society.

Very respectfully yours,
CHAS. H. STOWELL.

After considerable discussion of the report Dr. G. N. Acker moved to accept the offer of the editor of the NATIONAL MEDICAL REVIEW, and the motion was approved. Dr. Acker also moved to levy a special assessment of $1.00 upon each member to pay for the journal, and the motion was carried. Dr. W. W. Johnston moved that an editing committee of three be appointed by the President to edit the transactions; and that the editors be given discretionary power as to the publication of the papers and discussions. After some discussion this motion was carried.

At a later meeting the President announced the following as the committee: Drs. W. W. Johnston, G. M. Kober and Jas. D. Morgan.

At a later meeting of the Society, the committee made the following report:

The committee appointed to edit the transactions begs leave to make the following report with a view to securing the aid of the members of the Society in the work of publication:

While the members have the privilege of publishing their papers in any journal of their choice, yet it is earnestly hoped that preference will be given to the Society's pages in the NATIONAL MEDICAL REVIEW, as in no other way, than by securing the greater part of the papers read before the Society, can the transactions be made successful and creditable.

The committee considers that its chief duty is to publish all the papers read and a full epitome of the debates and not to exclude any paper or debate except for reasons that would be apparent to the writer as well as to the committee. As far as the committee is aware every paper that has been read within its knowledge should be published.

The only reason for condensing papers or debates is the limited space at our disposal. At the same time it is gratifying to state that the editor of the REVIEW has promised to be very generous and has allowed the society even more space than first granted. A further advantage to be derived from the publication of papers in the Society's Transactions is their more prompt appearance and more general local circulation.

It is urgently requested that every paper read, and the report of every pathological specimen, should be handed to the secretary at the date of reading.

It is intended to begin the publication of the transactions from March 4th, as up to that time most of the papers and all the debates have appeared in print, but since this date none of the discussions have been published.

W. W. JOHNSTON,
G. M. KOBER,
J. D. MORGAN,
Committee.

REPORTS OF COMMITTEE ON LEGISLATION.

THE MEDICAL PRACTICE ACT OF THE DISTRICT OF COLUMBIA.

An Act to regulate the practice of medicine and surgery, to license physicians and surgeons, and to punish persons violating the provisions thereof in the District of Columbia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be, and is hereby, created a board of medical supervisors of the District of Columbia, which shall consist of the presidents of the three boards of medical examiners hereinafter provided for and two persons, not physicians, one of whom shall be learned in the law, to be appointed by the Commissioners of the District of Columbia, each for a period of three years, or until his successor is appointed: *Provided,* That not more than two members of the board of supervisors shall be adherents of any one system of medical practice: *And provided further,* That said Commissioners may remove, after due notice and hearing, any member of said board for neglect of duty or other just cause, and that in case of the death, resignation, or removal of any member the vacancy for the unexpired term of said member shall be filled in the same manner as other appointments are made.

Sec. 2. That the said board of medical supervisors shall elect a president, a vice-president, and a secretary. Said board shall make, subject to the approval of the Commissioners of the District of Columbia, such regulations as may be necessary to carry into effect the provisions of this act. Said board shall hold such meetings as may be necessary for the transaction of business. Said board shall supervise all examinations provided for in this act, and shall issue all licenses to practice medicine and surgery or midwifery in the District of Columbia. Said board shall keep an official record of its meetings, also an official register of all applicants for examination for licenses to practice medicine and surgery in the District of Columbia. Said register shall show the name, age, place and duration of residence of each candidate, the time he or she has spent in medical study, in or out of medical schools, and the names and locations of all medical schools which have granted said applicant any degree or certificate of attendance upon lectures in medicine. Said register shall also show whether said applicant was rejected or licensed under this act. Said register shall be prima facie evidence of all matters contained therein. The secretary aforesaid may be elected by said board from others than its own members; said secretary shall also act as treasurer, and shall give such bond as may be required by the Commissioners of the District of Columbia; said secretary shall have the power to administer oaths upon such matters as pertain to the business of said board; said secretary shall mail to the address of each applicant a notice of the time and place of examination, not less than seven days before the examination, and at a longer period if requested by the applicant at the time of making application.

Sec. 3. That from and after the passage of this act, all persons desiring to practice medicine and surgery in any of their branches in the District of Columbia shall apply to said board of medical supervisors for a license to do so. Applicants shall submit to examination upon the following-named branches, to wit: Anatomy, physiology, chemistry, pathology, materia medica and therapeutics, hygiene, histology, practice of medicine, surgery, obstetrics and gynecology, diseases of the eye and the ear, medical jurisprudence and such other branches as said board shall deem advisable. Each applicant shall be certified by said board for examination as speedily as possible to the board of medical examiners whose members are adherents to the system of medicine which said applicant desires to practice; but said board shall not certify for examination any applicant until satisfactory proof is furnished that he or she is of good moral character and over twenty-one years of age, nor until he or she has presented a diploma conferring upon him or her the degree of doctor of medicine, issued by some medical college authorized by law to confer such degree: *Provided*, That said diploma, if issued prior to July first, eighteen hundred and ninety-eight, shall be accompanied by satisfactory evidence that said applicant has studied medicine and surgery not less than three years prior to the issue thereof, and if issued subsequent to June thirtieth, eighteen hundred and ninety-eight, shall be accompanied by satisfactory evidence that the applicant has studied medicine and surgery for not less than four years prior to the issue of said diploma. All examinations shall be both theoretical and practical and of sufficient severity to test a candidate's fitness to practice medicine and surgery.

SEC. 4. That said application for a license to practice medicine and surgery in the District of Columbia shall be made to the secretary of said board of medical supervisors upon a form prescribed by said board and shall be accompanied by a fee of ten dollars. Each application shall be in the hands of said secretary not less than two weeks before the day set for examination, and any application may be rejected for refusal to furnish any of the information called for, or for other irregularity. All applications shall be kept on file by said secretary.

SEC. 5. That immediately after the passage of this act the Commissioners of the District of Columbia shall appoint three boards of medical examiners, one to be known as the board of medical examiners of the District of Columbia, and to be composed of five physicians in good standing, adherents to the regular system of medical practice; one to be known as the board of homeopathic medical examiners of the District of Columbia, and to be composed of five physicians in good standing, adherents to the homeopathic system of medical practice, to be selected from a list of not less than ten names, submitted by a majority vote at some regular meeting of the Washington Homeopathic Medical Society, and one to be known as the board of eclectic medical examiners of the District of Columbia, to be composed of five physicians in good standing, adherents to the eclectic system of medical practice, to be selected from a list of not less than ten names, submitted by a majority vote at some regular meeting of the Eclectic Medical Society of the District of Columbia. Of the members of each board first appointed, one shall be appointed to serve one year, two to serve two years, and two to serve three years, and thereafter each member of each board shall be appointed to serve three years, or until his successor is appointed: *Provided*, That no member of either of said boards shall have been engaged in the practice of medicine and surgery in the District of Columbia for less than five years at the time of his appointment: *And provided further*, That in event of the failure of the Washington Homeopathic Medical Society or of the Eclectic Medical Society of the District of Columbia, after fifteen days' notice by the Commissioners of the District of Columbia, to submit the list of names aforesaid, said Commissioners may appoint the members of the board of homeopathic medical examiners or of the board of eclectic medical examiners, without restriction as to nomination by the society in default: *And provided further*, That said Commissioners may at any time remove any member of either of the boards named in this act for neglect of duty or other just cause, and that in case of the death, resignation, or removal of any member the vacancy for the unexpired term of said member shall be filled in the same manner as other appointments are made.

Sec. 6. That each member of said boards of medical examiners of the District of Columbia shall, before entering upon the discharge of his duties, take an oath to administer fairly and impartially the provisions of this act. Each board shall elect from its own members a president and a secretary. Each board shall hold a meeting for examination in the city of Washington on the second Thursday in January, April, July, and October of each year, and continuing so long as may be necessary to examine all applicants, and other meetings shall be held at such times as the board of medical supervisors shall direct. Each of said boards shall examine, at the meeting immediately following the receipt of the proper certificates from the board of medical supervisors, all applicants for licenses to practice medicine and surgery in the District of Columbia so certified.

Sec. 7. That the several boards of medical examiners shall, not less than one week prior to each examination, submit to the board of medical supervisors of the District of Columbia questions for thorough examinations in anatomy, physiology, chemistry, pathology, materia medica and therapeutics, hygiene, histology, practice of medicine, surgery, obstetrics and gynecology, diseases of the eye and the ear, medical jurisprudence, and such other branches as said board of medical supervisors may direct. From the lists of questions so submitted said board of medical supervisors shall select the questions for each examination, and such questions shall be the same for all candidates, except that in the departments of therapeutics, practice of medicine, and materia medica the questions shall be in harmony with the system of medicine selected by the candidate. Said examinations shall be conducted orally and in writing, in accordance with the rules and regulations prescribed by the board of medical supervisors, and shall embraee the subjects as stated in section three of this act. An official report of the result of each examination, signed by the president and the secretary and each acting member of the board of medical examiners conducting such examination, stating the average attained by each candidate in each branch, the general average, and the result of the examination, whether successful or unsuccessful, shall be transmitted to the board of medical supervisors within fifteen days from the date of such examination. Said report shall embrace all the examination papers, questions and answers thereto. All such examination papers shall be kept for reference and inspection for a period of not less than five years.

Sec. 8. That if in the opinion of a majority of the board of medical supervisors, after a careful examination of the report of the board of medical examiners by which any applicant was examined, said applicant has fairly and successfully passed such examination as hereinbefore provided for, the board of medical supervisors of the District of Columbia shall, as soon thereafter as possible, issue to him a license signed by the president and the secretary of said board and attested by the seal of the District of Columbia, which license shall entitle said applicant, after it is registered as hereinafter provided, to practice medicine and surgery in the District of Columbia: *Provided*, That a license shall be issued upon application, free of cost and without examination, to each physician, who is registered at the health office of the District of Columbia at the time of the passage of this act: And to physicians who may change their residence to the District of Columbia from any state or territory where medical laws and medical examining boards exist, the presentation of a certificate or license from a medical examining board, if found upon due inquiry to be true and genuine, being sufficient evidence of right to registration and certification under the provisions of this act: *Provided*, That the medical laws and examining boards of such states and territories grant equal rights and recognition to the licentiates of the board herein created. All licenses issued by said board shall be numbered consecutively, and a register shall be kept by the secretary showing the number of each license, the date of issue, and to whom issued.

SEC. 9. That the board of medical supervisors of the District of Columbia shall make, subject to the approval of the Comissioners of said District, such regulations as may be necessary to determine the qualifications of women desiring hereafter to commence the practice of midwifery in the District of Columbia, and shall issue licenses to such as are, after examination, found qualified; but no fee shall be charged for the examination of any applicant for such licenses, and no applicant who has been rejected shall be reexamined within one year from such rejection: *Provided*, That a license shall be issued upon application, free of cost and without examination, to each midwife registered at the health office of the District of Columbia at the time of the passage of this act.

SEC. 10. That the board of medical supervisors of the District of Columbia may, by a vote of four members, refuse to grant or may revoke a license, and may cause the name of any person to be removed from the record of the supreme court of the District of Columbia and from the register of the health office for any of the following causes, to wit: The employment of fraud or deception in passing the examinations provided for in this act; chronic inebriety, the practice of criminal abortion, conviction of crime involving moral turpitude, or unprofessional or dishonorable conduct. In complaints under this section the accused shall be furnished with a copy of the complaint and given a hearing before said board in person or by attorney, and witnesses may be heard for and on behalf of the accused, and for and on behalf of the said board. Appeal from the decision of said board may be taken to the court of appeals of the District of Columbia, and the decision of said court shall be final. Said board may at any time within two years from the refusal or revocation of a license, or the cancellation of registration under this section, by a vote of four members, issue, without examination, a new license to the person so affected, restoring to him or her all the rights and privileges of which he or she had been deprived by said board.

SEC. 11. That any person receiving a license as hereinbefore provided shall have it recorded in the office of the clerk of the supreme court of the District of

Columbia within three months from the date of said license, and the place and date of record shall be certified thereon by said clerk; and the holder of the license shall pay to the clerk of said court a fee of fifty cents for making the record. The holder of said license shall, after the same has been recorded, exhibit the same at the health office, and shall register, in a book provided for that purpose, his or her name and address. Whenever a license is revoked by said board of medical supervisors the secretary thereof shall report that fact in writing to the clerk of said court and to the health officer of the District of Columbia, who shall thereupon cancel such registration.

Sec. 12. That this act shall not apply to commissioned surgeons of the United States Army, Navy or Marine-Hospital Service, nor to regularly licensed physicians and surgeons in actual consultation from other states or territories, nor to regularly licensed physicians and surgeons actually called from other states or territories to attend specified cases in the District of Columbia, nor to the treatment of any case of actual emergency, nor to the practice of massage or the so-called Swedish movement cure, nor to the use of ordinary domestic remedies, without fee, gift or consideration of any kind.

Sec. 13. That from and after the passage of this act any person practicing medicine and surgery or midwifery in the District of Columbia, or who shall publicly profess to do so, without first having obtained from the board of medical supervisors of the District of Columbia a license, and registered the same as herein provided, or in violation of any of the provisions of this act or any of the rules and regulations made by authority conferred herein, or after his license or registration, has been canceled by order of said board of medical supervisors of the District of Columbia, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be punished for each offense by a fine of not less than fifty nor more than five hundred dollars, or by imprisonment in the District jail for a period of not less than ten nor more than ninety days, or by both such fine and imprisonment. It shall be the duty of the United States district attorney for the District of Columbia to prosecute all violations of the provisions of this act.

Sec. 14. That the secretary of the board of medical supervisors shall be paid for taking testimony the same fee that is allowed to an examiner in chancery for the same service. The expense of said board and of the examinations shall be paid from the license fees herein provided for; and if any surplus remain on the thirtieth day of June of each year the members of the board of medical supervisors appointed as such shall be paid such reasonable compensation as the Commissioners of the District of Columbia may determine, and any balance then remaining shall be divided among the three boards of medical examiners in proportion to the number of candidates examined, each member of each board of medical examiners to receive such part of the entire amount paid as that board itself shall determine.

Sec. 15. That nothing in this act shall be construed to conflict with an act for the regulation of the practice of dentistry in the District of Columbia, approved June sixth, eighteen hundred and ninety-two, nor to interfere with graduates of standard dental colleges, registered under the provisions of said act, in the exercise of their profession to the extent and within the limits of the curriculum of such standard dental colleges.

Sec. 16. That all acts or parts of acts, general or special, not in accordance with the provisions of this act, be, and are hereby, repealed.

(This bill has passed both houses of Congress.)

BILL RELATING TO THE TESTIMONY OF PHYSICIANS IN THE COURTS OF THE DISTRICT OF COLUMBIA.

"*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That in the courts of the District of Columbia no physician or surgeon shall be permitted, without the consent of the person afflicted, or of his legal representative, to disclose any information, confidential in its nature, which he shall have acquired in attending a patient in a professional capacity and which was necessary to enable him to act in that capacity, whether such information shall have been obtained from the patient or from his family or from the person or persons in charge of him: *Provided*, That this act shall not apply to evidence in criminal cases where the accused is charged with causing the death of, or inflicting injuries upon, a human being, and the disclosure shall be required in the interests of public justice." (This bill is now a law.)

The bill was referred to the Commissioners of the District of Columbia, who submitted the proposed measure to the attorney for the District of Columbia, to the justices of the supreme court of the District of Columbia, and to the president of the Medical Society of the District. The various opinions are given below:

OFFICE COMMISSIONERS OF THE DISTRICT OF COLUMBIA,
Washington, January 13, 1896.

DEAR SIR: The Commissioners have the honor to make the following response to your reference to them for their examination of and report on Senate bill 981, "relating to the testimony of physicians in the courts of the District of Columbia."

Upon receipt of the bill they conferred with the advocates and opponents of the proposed measure, and ultimately submitted the subject to the justices of the supreme court of the District of Columbia and the president of the Medical Society of the District and to their attorney. The Commissioners have no especial qualifications or experience that would render their conclusions on the subject of exceptional value, and therefore take the liberty of transmitting copies of the opinions of the justices of the supreme court of the District, of the president of the Medical Society of the District as the representative of that society, and of the attorney for the District, as the best manner of getting before you the views of the most authoritative exponents of both sides of the question. Very respectfully,

JOHN W. ROSS,
Pres. Board of Commissioners,
District of Columbia.

Senator JAMES MCMILLIAN,
Chairman Committee on the
District of Columbia, U. S. Senate.

OFFICE ATTORNEY FOR THE DISTRICT OF COLUMBIA,
Washington, December 23, 1895.

GENTLEMEN: I have examined Senate bill (S. 981, Fifty-fourth Congress, first session) relating to the testimony of physicians in the courts of the District of Columbia, which you referred to me for opinion.

The object of this bill is to place physicians on the same plane with lawyers as to confidential communications in the course of their employment. At common law (which prevails in this District) confidential communications made by a patient to his physician are not privileged. This rule has been changed by statute in a majority of the States, so that communications made by a patient to his physician or surgeon and information acquired by him while attending a patient in a professional capacity, which are important to enable him to act, are protected.

Judge Cooley (Torts, 619, 620), after observing that the common law does not extend to the confidence bestowed upon a physician the same protection which it gives to the legal adviser, says:

"Yet the reasons in support of it are largely the same, and ought to have been recognized as sufficient. The disclosures made to any of the three (physicians, clergymen and lawyers) may in a measure be compulsory, and what is extorted can never rightfully be made use of except for the very purpose for which it is obtained. The competent physician does not undertake to make cures where he knows nothing of the causes; and he may need to know the history of an ailment before he is able to determine the family to which it belongs, or the remedies likely to be available for its cure. He demands this; and in the mind of the patient the alternative to disclosure may be that he will be wrongly and prejudicially treated. But the disclosure that may be useful for treatment may be damaging otherwise if placed before the public; and if the lips of the physician are not sealed, the patient may elect to deceive him rather than to have his body cured at the expense of his liberty or his reputation."

The bill very properly excepts evidence in criminal cases where the accused is charged with causing the death, etc., and the disclosure is required in the interest of public justice.

In my opinion the measure is one that is entitled to be favorably recommended to Congress.

The bill is herewith returned.

Very respectfully,
S. T. Thomas,
Attorney District of Columbia.

The Commissioners, etc.

Supreme Court of the District of Columbia,
Washington, January 17, 1896.

Dear Sir: In response to your request for our views as to the desirability of the proposed legislation, we have examined and considered Senate bill No. 981, relating to the testimony of physicians in the courts of the District of Columbia, and suggest that you recommend unfavorable action thereon by Congress.

The privilege thus proposed to be extended to physicians, exempting and prohibiting them from disclosure in the courts of information obtained in attending a patient in a professional capacity did not exist at common law, and in a more or less restricted form exits by statute to-day in only twenty of our States and Territories. Of these, New York is the only Atlantic Coast State and Arkansas the only Southern State. The legislation is comparatively recent, and of the States adopting it all are quite young except those just mentioned and California, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Ohio and Wisconsin.

The privilege extended to communications between legal adviser and client at common law was based upon public policy, and had direct reference to the administration of justice which required "the aid of men skilled in jurisprudence, in the practice of the courts, and in those matters affecting the rights and obligations which form the subject of all judicial proceedings." The reason for the rule was said to be that without it no man "would dare consult a professional adviser with a view to his defense or to the enforcement of his rights." No such reason exists or applies as to communications made by a patient to a physician, and it clearly fails with reference to knowledge derived by the physician from observation. There is no occasion for the provision excluding information obtained fron the family or others attending the patient, for the rule of evidence as excluding hearsay testimony accomplishes that.

The enactment sought by this bill would be a serious obstruction to justice in contests over life insurance, personal injury from negligent or willful act, wills, and others in which mental capacity is involved. In such cases, facts coming under the observation of the attending physician are generally of first importance, and in cases involving questions of mental capacity, the opinion of the physician, based in whole or in part upon communications made to him by the patient is frequently the most important evidence adduced. These objections are not obviated by placing such evidence within the power of "the person afflicted, or of his legal representative" to permit or deny. It is not to be anticipated that such person will ever consent to the examination of a physician whose testimony is expected to be adverse to him, and the other party to the litigation, and the court as well, perhaps with the full knowledge of the situation, would be powerless in such instances to require the truth to be shown.

Under statutes in force in this District, parties to a cause are competent and compellable witnesses in behalf of each other, as well as competent witnesses in their own behalf. They ought not to be permitted to exercise control over the knowledge of others.

We think that this bill ought not to become a law in its present shape; that it is not susceptible of such amendment as will obviate the objections stated, and that such legislation would be detrimental to the administration of justice.

E. F. Bingham.
A. B. Hagner.
A. C. Bradley.
L. E. McComas.
Chas. C. Cole.
Walter S. Cox.

Hon. John W. Ross,
Pres. Board of Commissioners,
District of Columbia.

Washington City, D. C.,
February 11, 1896.

Sir: The bill (H. R. 2647) entitled "A bill relating to the testimony of physicians in the courts of the District of Columbia," has been drafted and presented to Congress by direction of the Medical Society of the District of Columbia. It is modeled after the law of the State of New York, and is substantially the same as similar laws in force in twenty States and one Territory of this country, the first of which was enacted by the State of Oregon in 1872 and the latest in 1887 by the States of Indiana, Wyoming, Montana and Idaho.

The following list includes the States, with the year, page and section of the Statute Book in which the law is to be found: (See table below).

The opposition to the enactment of this bill is set forth in the protest of six justices of the supreme court of the District of Columbia now on file with the Board of Commissioners of the District of Columbia to which I am directed by the committee of the Medical Society of the District of Columbia to make reply as follows:

The medical profession of this District holds in high esteem the justices of the supreme court of the District of Columbia as well for their learning and judicial ability, as for their personal standing and integrity, but it is surprised that they should unite in a formal protest against the enactment of this bill, which has for its object the extension to the citizen of the liberty of privileged communications, and for his protection in the enjoyment of the right of unreserved

States.	Where found.	Year.	Page.	Section.
Arkansas	Stat	1883	625	2862
California	Code C. P.	1885	....	1881
Colorado	Gen. Stats	1883	1062	4
Dakota	Comp. Laws	1887	910	5313
Idaho	Revised Stats	1887	679	....
Indiana	Rev. Stat	1887	679	497
Iowa	Rev. Code	1884	850	....
Kansas	Comp. Laws	1885	645	323
Michigan	Gen. Stat	1882	1889	7515, 86
Minnesota	Gen. Stat	1881	792	10
Missouri	Rev. Stat	1879	950	4017
Montana	Comp. Stat	1887	*230	650
Nevada	Gen. Stat	1885	833	3406-3484
New York	Code C. P. (4 Rev. Stat. 164)	....	....	834
Ohio	Rev. Stat	1884	1096	5241
Oregon	Gen. Law	1872	251	....
Utah	Comp. Laws	1876	506	....
Washington	Code	1881	102	392
Wisconsin	Rev. Stat	1878	992	4075
Wyoming	Rev. Stats	1887	590	2589
Oklahoma Territory		....	....	....

*Civ. Code.

and confidential confession to his physician, now denied him by the common law in force in this District, and enforced by the said six justices of the supreme court of the District of Columbia. It is quite reasonable to suppose there are in either House of Congress many men, who, for the time being, are discreet legislators and fully qualified to determine the utility and wisdom of such laws to whom the Medical Society will appeal with the hope of securing the passage of House bill 2647, the opposition of the justices of said court to the contrary notwithstanding, and it will continue to prosecute its purpose with unabated zeal until success shall crown its efforts.

It is not known to the Medical Society, nor to any member thereof, that any organized opposition, either judicial or popular, has been made to the enforcement of such laws in any of the States in which such statutes exist, or that any effort has been made to repeal them, or that any conflict exists in regard to their utility and justice. It must therefore, at least be inferred that the wisdom of such statute protection of physicians from enforced disclosure of the confidential communications of patients has been established, and it remains only to extend such protection to less favored communities.

The bill is intended to protect physicians from the compulsory disclosure of information acquired in a professional capacity and which may be necessary to enable them to manage cases of sickness with intelligence and success. It frequently occurs that patients will conceal important and sometimes absolutely necessary information, and occasionally will deny the existence or previous occurrence of certain circumstances or conditions alleged by the physician, until admission or confession is extorted by some statement of the physician that longer concealment or denial would prove dangerous and perhaps fatal. It is a recognized principle of law that a witness can not be forced to criminate himself.

Surely information extorted by a physician or communicated to him in the confidence of a confiding patient should be equally inviolable as information known only to the witness himself. If a witness can not be compelled to criminate himself directly by confession in open court, is it not gross injustice to compel him to criminate himself indirectly by the compulsory disclosure of his confession or confidential communication to his physician made under duress, fright, or emotional impulse? If a man unwillingly confesses some circumstance, incident, or vice of his life to a physician to enable that physician to treat an existing ailment with intelligence, is it more than exact justice to grant him the right of refusing permission to such physician to disclose in open court such confidential communication? The bill is intended to protect the patient from such indirect, and involuntary crimination of himself and compulsory disclosure of a secret confided to his friend and physician.

The second paragraph of the protest of the six justices sets forth three averments in opposition to this bill.

(1) "New York is the only Atlantic Coast State" that has adopted such a law.

(2) "Arkansas is the sole Southern State" in which such a statute exists.

(3) "The legislation is comparatively recent, and of the States adopting it all are quite young except those just mentioned (New York and Arkansas) and California, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Ohio and Wisconsin."

The third averment carries with it the emphatic contradiction of the averment of recency, because of the admission that it is inapplicable to eleven of the twenty States in which such statutes exist. If the averment of recency was true, how would such fact disprove or lessen the wisdom and justice of such laws? On the contrary, it would seem to establish the equity of such legislation because in evidence of the progress of a higher civilization and broader conception of private rights and privileges. The progress of civilization during the past twenty-four years (the first law dates back to 1872) has not been more clearly shown than in the many recent statutory modifications of and exemptions from legal traditions, than by such legislation in the States named, which has exempted 27,000,000 (census of 1890) of the citizens of this country from such compulsory disclosures.

The citation of one Atlantic Coast and one Southern State is even more fallacious and partakes of the nature of a derisive appeal to geographical, sectional or local prejudices. New York is the largest, most populous and wealthiest of the original thirteen States. Why then may not her statute of exemption be accepted as testimony in support of the justice of such legislation, all the more strongly so, because as yet there has been neither judicial nor popular remonstrance against such statutory protection of physicians from the compulsory disclosure of the confidential communications of her sick citizens? And surely Arkansas is old enough and her citizens are sufficiently advanced in civilization to know how best to protect her citizens in their private rights and privileges. So far, then, these two States may be cited as exemplars worthy of the emulation of other sister States still lagging in the tradition of the common law transmitted to us from English descent.

The Medical Society of the District of Columbia, as does the medical profession at large, admits (see third paragraph of protest) the justice of the exemption of legal advisers from enforced disclosure of the secrets of their clients; but it can not be admitted that such confidential communications are more sacred than the confidences of sick people. Legal advisers and attorneys are, for the most part, concerned with litigants and their confidential information relates mainly to business matters and property values. The confidences of the physician refer most especially, and in most instances exclusively, to personal conditions, character, temperament, idiosyncracies, vices, indiscretions of life, family history, inherited predispositions and diseases, and avoidable and unavoidable afflictions, social as well as pathological, and all this in the interest of health, longevity and life. If these two widely different classes of confidences could be measured by any common or uniform standard, those of the physician would rise far above those of the attorney on the scale of inviolability.

It is stated in the same paragraph that if the privilege was not "extended to communications between legal adviser and client" "no man would dare consult a professional adviser with a view to his defense or the enforcement of his rights." The predicate and postulate are both conceded, and it is equally true that "no man would dare consult" his medical adviser with a view to the treatment and cure of disease if he knew that his confidential communications and confessions would be disclosed in open court. "The privilege extended to communications between legal adviser and client at common law" is based upon public policy, but that fact can not justify the limitation of the privilege exclusively to the legal profession, nor is it believed that popular judgment, always the safest depositary of power, will sustain such contention.

Under the common law the physician can not protect himself from compulsory disclosure of confidential communications, nor can the common law be amended; relief can, therefore, only be obtained by statute law enacted by the legislature. The patient should be protected in the unreserved and fearless statement of his ailment and its cause. Suppose, for instance, an erring man, by a candid confession, aided his physician in the diagnosis of syphilis contracted by illicit intercourse, and is treated to his own advantage and to the protection of his wife and unborn children. If he knew his medical attendant could be compelled to convict him of adultery, he would hesitate to make such confession, to his own destruction and ruin of his family.

According to the census of 1890, 27,472,296 citizens of this country have been exempted by State legislation from such compulsory disclosures as are set forth in the bills H. R. 2647 and S. 981. These bills seek to guarantee to this community the same protection. The original bill was prepared by a distinguished attorney of the local bar, after a careful examination of the statutes in the twenty States. This simple statement of facts is a conclusive answer to the protest of the six justices and establishes the wisdom and justice of such legislation. I have the honor to be,

Your obedient servant,
Samuel C. Busey, M. D.,
President of the Medical Society,
District of Columbia.

Hon. John W. Ross,
Pres. Board of Commissioners,
District of Columbia.

At a meeting of the Medical Society for April 1, the following applicants were elected to full membership:

Charles H. Bowen.
Randolph B. Carmichael.
Charles W. Keyes.
Charles C. Marbury.
Edward E. Morse.
J. Ramsay Nevitt.
Rupert Norton.
Sofie A. Nordhoff.
Frederick O. Roman.
Ada R. Thomas.

ARGUMENTS AGAINST A BILL TO PREVENT VIVISECTION.

Memorial Adopted by the Medical Society of the District of Columbia, at a meeting held on Wednesday evening, April 22, 1896.

To the Congress of the United States:

Having been informed that an effort is being made by certain citizens of this District to secure the passage of a bill to prevent experiments upon living animals—Senate Bill 1552—we respectfully submit for your consideration the following facts and arguments in opposition to this bill:

First. We do not hesitate to assert that without such experiments there could be no scientific biology and medicine would have no scientific basis. Our knowledge of physiology, of toxicology, and of the action of many important medicinal agents has been largely gained in this way. Our precise knowledge of the etiology of a considerable number of the infectious diseases has been obtained by inoculating susceptible animals with pure cultures of the various pathogenic bacteria, and could have been obtained in no other way. By such experiments the demonstration has been made of the specific pathogenic power of the anthrax bacillus, the spirillum of relapsing fever, the tubercle bacillus, the glanders bacillus, the diphtheria bacillus, the streptococcus of erysipelas, and of puerperal fever, the micrococcus of pneumonia, etc. The prevention of hydrophobia by Pasteur's method, the treatment of diphtheria by the antitoxin, the production of bovine vaccine virus, and other practical applications of the knowledge already obtained would be impossible if those who are urging anti-vivisection legislation could have their way. We cannot stop to enumerate the various important practical benefits which surgery has derived from animal experimentation: but the experience gained in this way as regards the comparative methods of different methods of ligating arteries, of closing wounds of the intestines, etc., has resulted in great improvements in surgical technique and in the saving of numerous lives.

Yet, there are those who maintain that no valuable results have been obtained by experiments upon the lower animals, and the anti-vivisection literature, together with much sensational nonsense, contains quotations from the writings of certain physicians which appear to support this view. No doubt these quotations, to a certain extent, are garbled, and in their proper connection would not give such positive testimony as to the ignorance of the physicians to whom they are credited. For, to deny the importance and value of the results which have been obtained by experiments upon the lower animals, is to give evidence of lamentable ignorance as regards the present position of the biological sciences, and especially of scientific medicine. But the argument that no results of importance have been attained, in view of the unimpeachable evidence to the contrary, is no longer given a very prominent place in anti-vivisection literature. This seeks rather to carry on the propaganda, which had its origin in England more than twenty years ago, by exaggerated accounts of the cruelty of the experiments performed: and the susceptibilities of many well-meaning and estimable members of the community have been aroused by the harrowing details of experiments which they are led to believe are frequently repeated in biological and pathological laboratories, but which few of those who devote their lives to research-work in such laboratories have ever witnessed.

Second. So far as we know no evidence has been adduced that cruel and unnecessary experiments are being performed in this District: and, in our judgment, the proposed legislation is not only unnecessary but would seriously interfere with the progress of scientific investigations now being carried on in the various Government laboratories in this city, and in general with the advancement of scientific medicine.

Third. That physicians and others engaged in investigations, having for their object the promotion of human knowledge and the prevention and mitigation of human suffering, are less human than the members of the societies which have been organized for the prevention of cruelty to animals we do not believe.

To pass laws subjecting them to penalties and to espionage by persons ignorant of the nature and objects of their experiments, as is proposed, would not only seriously hamper research work in all lines of biological investigation, but would be an uncalled for reflection upon the humanity of those members of the medical profession, and others, who are engaged in investigations of this nature. *As a matter of fact anæsthetics are habitually administered in experiments which involve an amount of pain worthy of consideration:* but they are not considered necessary in trifling operations, such as the administration of a hypodermatic injection or the vaccination of a calf for the purpose of propagating vaccine virus.

Fourth. It is difficult to understand why these mischievous attempts should be made to secure legislation the effect of which would be to restrict scientific investigation, when there is such a broad field in other directions in which the crusade might be carried on with greater propriety. The trapping of animals for their furs is going on in all parts of the world, and the victims are held for hours, and even days, in the sharp jaws of the trap before they are finally dispatched. The huntsman leaves his uncaptured wounded game to a lingering death. If he is a humane man, he quickly kills the wounded bird or animal when captured, and it has not been thought necessary to pass laws requiring him to do so. The fisherman plays the bass or salmon with a sharp hook in its mouth for an hour or more, and no one protests, but the teacher of biology is to be prevented by act of Congress from exhibiting the circulation of blood in the blood-vessels of the mesentery of a curarized frog. The farmer, by a cutting or crushing operation, castrates his colts, calves, sheep, and pigs, and capons are made by a painful cutting operation, but no one proposes legislation requiring the use of anæsthetics in the performance of these operations. Under these circumstance the proposition to subject those engaged in sceintific research work which calls for the performance of experiments upon the lower animals to espionage and penalties, as is proposed in the bill referred to, appears to us to be an unjust discrimination against a class of men who are entitled to the highest consideration. We, therefore, respectfully protest against the enactment of any such legislation.

Upon the motion of Dr. Behrend, the Memorial was unanimously adopted.

EDITORIAL NOTE.

This number begins the new arrangement whereby the NATIONAL MEDICAL REVIEW publishes the transactions of the Medical Society of the District of Columbia. In keeping with this event in local medical history we have decided to begin a new volume; therefore this number is No. 1, Volume VI. By so doing the journal will be in much better form for binding, and thus preserving, the proceedings of the medical society. We propose to put forth every effort to insure the permanence of this new arrangement. The July number will be enlarged and will contain a number of original papers, discussions, etc.

BOOK REVIEWS.

OBSTETRIC ACCIDENTS, EMERGENCIES AND OPERATIONS. By L. Ch. Boisliniere, A. M., M. D., L. L. D., late Emeritus Professor of Obstetrics in the St. Louis Medical College. Profusely illustrated. Pages 380. Price $2.00 net. W. B. Saunders, 925 Walnut St. Philadelphia. 1896.

So far as we know, this is a book quite outside of the usual line. We have a number of works on Obstetrics, and on all the branches relating thereto, but we believe this is the first time a volume of this size has been devoted exclusively to the emergencies likely to arise in the practise of midwifery. It is a volume which the practitioner will appreciate when he has some emergency on hand, and does not have a consulting library or a consulting friend near by. The work is divided into three parts, relating respectfully to Accidents to the Woman, Obstetric Operations and Accidents to the Child. The author has had an experience of nearly half a century in private and hospital practice and is abundantly qualified to speak with authority. The illustrations are very clear and instructive, and a large number of them new to this work. Such a work as this certainly fills a place hitherto unoccupied and we are sure it will receive a cordial welcome by the profession.

THE STOMACH: ITS DISORDERS, AND HOW TO CURE THEM. By J. H. Kellogg, M. D., Superintendent of the Battle Creek Sanitarium; Editor of Modern Medicine, etc., etc.

It is sufficient only to announce something from the pen of this clear and pleasing writer in order to know that interesting and valuable material has been added to medical literature. We have known for sometime that Dr. Kellogg had been paying special attention to subjects relating to digestion. Probably no man in the world has greater facilities with which to work in this line than has the superintendent of the Battle Creek Sanitarium, and it is also true that there are few men who would take such advantage of opportunities as does this hard working editor of Modern Medicine. The medical reader will be sufficiently interested in studying the new facts which are presented concerning the digestive process; the lay reader will be delighted to find here such simple directions for the treatment of indigestion, commonly known as dyspepsia. There is no small amount of scientific matter in the volume, some of it entirely new; but its value to the physician will be in the suggestions it gives for the dietetic treatment of the various stomach disorders. Above all things this is eminently a practical volume. We most heartily recommend it to all, and especially do we urge that it be read by physicians who are suffering from indigestion.

A COMPEND OF THE DISEASES OF CHILDREN. Especially adapted for the use of Medical Students. By Marcus P. Hatfield, A. M., M. D., Professor of Diseases of Children, N. W. U. Medical School, etc. Second edition, thoroughly revisen, colored plates. Pages 220. Price 80 cents. P. Blakiston, Son & Co., 1012 Walnut St. Philadelphia. 1896.

A COMPEND OF GYNECOLOGY. By Wm. H. Wells, M. D., Adjunct Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic, etc. 150 illustrations. 262 pages. Price 80 cents. P. Blakiston, Son & Co., 1012 Walnut St., Philadelphia. 1896.

Our readers are so well acquainted with these quiz-compends that little need be said of these two latest additions. Both these authors have had considerable experience as teachers in medical colleges, and are, therefore, familiar with the needs of medical students. Our readers all know probably that although these are called Quiz-Compends yet they are not arranged in the form of questions. The subject matter which can be found in the large text books is so condensed that all the vital points are brought within a volume which is sold for less than one dollar.

Newer Remedies. This is a reference manual for physicians, edited by Virgil Coblentz, professor of Pharmacy in the New York College of Pharmacy. It is published by D. O. Haynes & Co. of New York, and is sold for 50 cents. We are indebted to McKesson & Robbins for the copy at hand.

The Popular Science Monthly for June, contains many interesting articles and letters. Herbert Spencer vigorously opposes the adoption of the metric system, and points out the advantages of a system composed of the number twelve. The woman question is debated in a new light in this number. Probably the only true solution of this question will be reached by such continual agitation.

THE

NATIONAL MEDICAL REVIEW.

Vol. VI. WASHINGTON, D. C., JULY, 1896. No. 2

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Publication Committee:
W. W. Johnston, M. D., Geo. M. Kober, M. D., Jas. D. Morgan, M. D.

MEETING OF MARCH 11, 1896.

Dr. S. C. Busey, President, in the Chair.

Foreign Body—Plum Seed—in the Œsophagus: Perforation into Pleural Cavity.

Dr. C. W. Richardson reported the following case:

Dr. Darling of Brightwood, referred the child, whose case I am about to report to me. The child was four years old. Dr. Darling states that eight days before the patient was brought under my observation it was said to have swallowed a plum seed. The child was well nourished, and active for its age. The mother states that while feeding her child with preserved plums, during which she supposed she was exercising all care in excluding the seeds, she observed that there was considerable difficulty, and then inability to swallow the food she was taking. They sent for Dr. Darling and he made efforts to locate the seed in the pharynx but failed to find any foreign body. All interested felt certain the child had swallowed some foreign body.

On succeeding days the inability to take food was followed by rapid emaciation, great restlessness and indications of febrile reaction. The desire to take food and drink was constant, and all efforts on the part of the little one were in vain. Food was immediately ejected and liquids returned through the nasal passages. No efforts to locate the foreign body had been made previous to coming under my observation.

I saw the child on Saturday morning, and found it emaciated, showing marked evidence of a septic condition. The examination of nose, pharynx and larynx, gave negative result with regard to the possible location of a foreign body. It was interesting to note the little one's effort to aid me in every way in these examinations. The inspection of the pharynx and larynx was rendered somewhat difficult on account of the great amount of pus that was constantly welling up apparently from the œsophagus. When the child was given water to drink, it was interesting to note that it was immediately regurgitated through the nostrils; the child continuing to drink with the stream of pus and water returning into the glass from which it was drinking. The column of water evidently passed onward to the seat of obstruction and then returned up the pharynx and through the nasal chambers. It now became evident that the seat of obstruction was high up in the œsophagus. At my first attempt to pass a small sound, after passing about three inches below the cricoid cartilage, my sound was firmly arrested. I did not use force because I knew the body was moderately sharp pointed at both ends, and that the walls of the œsophagus must be thoroughly infiltrated and softened by the inflammatory action set up, thus rendering the use of force excessively dangerous to the integrity of the walls of the gullet. I then concluded that I had located the body, and advised the parents to consult Dr. Thompson, and to gain his views as to the advisability of surgical interference. The breath had the sweet alcoholic odor of sepsis.

Drs. Thompson, Darling and I saw the child the next day in consultation. Dr. Thompson told me, to my surprise, that he had passed a sound into the stomach, without difficulty, shortly after the child left my office. The sound that I first attempted to pass, as well as those used after, all came out covered with thick pus and blood. At this second examination Dr. Thompson and I passed sounds without difficulty and without meeting any obstruction; nevertheless the obstruction to food and drink was as great as ever. On account of the possible location of the foreign body, of our inability at this second examination to locate it and from the desperate condition of the child we decided that endo-œsophageal or external operations were not to be considered. The child died early Tuesday morning.

Post-mortem was made for me by Dr. Wellington, Tuesday at 7:30 p. m.

Rigor mortis moderate. Body emaciated. No marking on surface. The thorax was opened in usual manner. Left side of thorax first exposed. Left pleura, lung, pericardium and heart normal. Right pleura discolored and filled with pus. Right lung collapsed. On exposing œsophagus it was found to be intact throughout its whole course. It was then divided at the diaphragm and Dr. Wellington proceeded to dissect it away. On raising the tissue up, when between about the third and fourth dorsal vertebræ, the seed I have shown you dropped into the right thoracic cavity. It was not possible afterwards to locate exactly through which of two rents in the œsophagus the body came through.

You will notice the course of the œsophagus in the specimen, and the thinness of its wall at the site of the bifurcation of the trachea. It is quite evident that the irritation of the seed set up an inflammation of the œsophageal wall which terminated in the formation of an abscess which ruptured into the pleural cavity.

DISCUSSION.

Dr. Thomas C. Smith said he was very much interested in this case, as, in the summer of 1894, he had had a somewhat similar experienc and similar result. A little girl of six years had been drinking a glass of soda water when she began to choke. Emetics and other methods of inducing vomiting were tried, but without relief. The mother remembered that the child had had a cough drop in her mouth when she went to the drug store. The next day the child had great difficulty in breathing, but on the second morning she was very bright, had very little dyspnœa and talked well. Soon afterwards she had an attack of vomiting in which she ejected some thick, dark substance, and soon afterwards died. He was unable to get an autopsy.

Dr. C. R. Dufour reported a similar case. A gentleman came into his office a few months ago after eating raw oysters, when he got some spiculæ of shell in his throat, causing some spitting of blood. He made an examination of the larynx and the œsophagus. He found the pharynx lacerated. He was doubtful about passing the sound fearing that any force might drive the sharp fragments of shell into the tissues and he produced emesis by giving a dose of apomorphia; the patient soon vomited up a very sharp piece of shell.

Dr. A. F. A. King suggested that in cases like Dr. Richardson's where a round body, as a plum stone, had been swallowed relief might be had by posture. If the child were suspended by the heels the foreign body might be espelled.

The President suggested that this postural method was generally combined with the old fashioned plan of giving a sharp blow on the buttocks.

Dr. Anton Coe said he had a somewhat similar case. An old colored woman, desiring a drink of sarsaparilla, had drunk it directly from the bottle, and immediately afterwards experienced the feeling of something obstructing her throat, causing choking. When she came to his office he found several pieces of straw in the œsophagus, which he removed, and at the same time noticed the oozing of blood in small amount. He extracted one piece of glass, and then resorted to the expedient of flushing out the throat, by forcing large amounts of water into it, in the hope of forcing the foreign body into the stomach. She improved and went home, but, subsequently was removed to Freedmen's Hospital where a piece of glass was removed from the pharynx. She was twice taken to the hospital for this condition. The piece of glass removed was sharp, about the thickness of a needle and a quarter as long. Her throat had since healed, but she still had a feeling of soreness.

Dr. T. V. Hammond said that the case in point was of great interest to him as a general practitioner. Dr. Richardson had undoubtedly made a correct diagnosis in his first examination, and he thought that with the skill of modern surgery the foreign body could have been removed from the œsophagus and the life of the little sufferer saved had the diagnosis been made before septicæmia ensued; certainly this was possible if not probable. The one lesson to be learned from this case was the wisdom of seeking early aid from the specialist.

Dr. Richardson, in closing the discussion, said he did not think the plum stone in his case penetrated through the œsophagus, but Dr. Thompson, when he examined it, probably forced it into the pus cavity. It was not in the pleural cavity before the autopsy. He did not think Dr. King's suggestion was applicable or advisable in this case: besides, the child had had emesis without any result, so he did not think that turning the child upside down would have been attended with any better results. He thought the cases he had seen had been delayed too long, and their condition was not recognized until septic symptoms developed. As he had already stated: when he withdrew the sound after striking some body in the œsophagus in his first examination it was covered with blood and pus, and he had come to the conclusion that the œsophageal wall must have been ulcerated, and it would have been dangerous to force the body on. It was utterly impossible to positively determine its locality, for the same reason. Three years age he reported a case in which a foreign body had been lodged in the right bronchus for three weeks, without setting up suppurative changes.

Relation of Cataract to General Diseases.

[Abstract of paper read before the society by Dr. C. R. Dufour, and published in the Journal of the American Medical Association, March 28.]

Dr. Dufour said that in considering the etiology of cataract, he does not believe it to be due to a senile disease as is atheroma. The causes of it are obscure, but it is related to general conditions such as malaria, epidemic influenza, diabetes, syphilis, rachitis, diseases of the skin, whooping-cough, typhoid and typhus fever, pellagra, nervous diseases, nephritis and diseases of the heart and blood vessels. He concludes his paper as follows:

I would enter a plea to the general physician to aid us as much as possible in our research in this direction, that the etiology of many of our cataract cases which are now obscure, may be cleared up and better understood. I would suggest that the eyes be tested for their visual acuteness, at regular intervals; the interior of the eye should also be examined to determine if cataract be present, and as to how far the sight is affected by it, and if other causes are present, how far the impairment of vision is due to them; the careful supervision of the patient for any symptoms which point to impairment of circulation and digestion. The interest of the patient demands this supervision, for by it we will become more familiar with the nature, prevention and removal of the general conditions which may be the cause of the formation of cataract. As before stated, in all cases of incipient cataract, careful analysis of the urine should be made at different intervals. Though we may not have proven a direct connection between general disease and the formation of cataract, yet it can not be denied the existence of a predisposing cause in all diseases where there is impairment of nutrition and lessened vitality.

DISCUSSION.

Dr. E. Oliver Belt said Dr. Dufour's paper was a very interesting one, still he could not but believe that general disease had very little to do with the formation of cataract. Diabetes and rachitis did have some influence but malaria, influenza, typhoid fever, etc., were extremely rare as causes. One per cent was about all that could be traced to the influence of diabetes, and only about six per cent to albumenuria, so that it appeared that these diseases had very little to do with the formation of cataract. In other diseases cataract is found so rarely that it may have been a mere coincidence, or due simply to the general disturbance of nutrition.

Convulsions may have some influence as a cause of cataract, as they are found occasionally after certain drugs have produced convulsions, as in ergotism, and in certain diseases as rachitis in which convulsions frequently occur. The formation of cataract is usually attributed to some disturbance of the nutrition of the lens, further than this we are still in the dark as to the cause. In diabetes some think it is due to extraction of water from the lens by the sugar in the surrounding fluids, as it is found by experiment that if a clear lens is immersed in a sugar solution it will become opaque, however very little sugar has been found in the aqueous of patients suffering with diabetes, so the truth of this theory has not been verified.

Dr. Dufour, in closing the discussion, said he had not much more to add to his paper. His idea in bringing the matter before the society was to gain the co-operation of the general practitioner in order that the disease might be taken in its incipiency. As Dr. Belt had said we were not always certain as to the cause of cataract, but we did know that it was due in some way to disturbances of nutrition. The hope of treatment in the beginning when there was a slight opacity of the lens, was to adopt some method to prevent the formation of the cataract, give the patient good vision, and still leave the lens in place. It was only by the co-operation of the general practitioner, however, that this could be accomplished. He did not mean to assert positively that there was any direct dependence of cataract upon general diseases, but he did believe there was some influence of the one upon the other, and the best way to counteract this was by co-operation with the general practitioner, as suggested in the paper just read.

The President asked Dr. Dufour if he did not think it was the man who adjusted the first pair of glasses—in other words the oculist—and not the general practitioner who had the best chance of discovering and treating cataract in its incipiency?

Dr. Dufour replied that that was so to

a certain extent, but he was sorry to say that in the large cities it was not the oculist but the optician, who had no qualifications whatever, who generally adjusted the first glasses.

MEETING OF MARCH 18, 1896.

Dr. S. C. Busey, President, in the Chair.

The following Pathological Specimens were presented by Dr. J. Wesley Bovee:

1. Parovarian cyst.
2. Ruptured tubal pregnancy.
3. Uterine fibroids, complicating pregnancy, abdominal hysterectomy.

Dr. Bovee read the following reports of the cases:

1. A white woman, single, 27 years of age was seen in consultation March 4th. Her menses began at fifteen and have all the time been irregular, sometimes being absent for three months at a time; though during the past year have been quite regular, scant and painful.

The last period occurred one week ago. Five years ago she was injured by falling backward partly off a horse and has had occasional pain through the abdomen since. One year ago first noticed an enlargement of the abdomen and thought she was getting fleshy. This chagrined her very much and she remained at home more than was her custom. The abdomen has rapidly increased and recently the circumference has increased at the rate of two inches per month. She entered Providence Hospital March 9th, and on the eleventh I removed a right par-ovarian cyst weighing thirteen pounds. The ovary of that side is practically normal and the tube is quite a remarkable affair, being sixteen inches in length as it is spread out over the cyst. The opposite appendage being normal was not disturbed. A peculiar feature of the case was that the growth appeared to spring from the left side and laid on that side, principally, even after the abdomen was opened. It was only after the normal tube and ovary were found on the left side that I found it to be a tumor of the right parovarium. The patient is practically out of all danger.

2. A young colored woman who had had a child three years ago after a normal labor, enjoyed good health previous to about the middle of December, 1895, and menstruated last December 12th, of that year. Then vague pelvic pains and indigestion began and grew worse, culminating in a severe attack January 20th last. The menses had now been absent forty-four days and as the pelvic pain was extremely severe and accompanied with the passage of a large blood-clot from the vagina, she thought she had had an abortion. However, as she was feeling much better two days later, she got up and was about the house. But the pain and flow continued and she applied for treatment at the out-door department of Columbia Hospital, February 17th. There an examination was made and a fluctuating mass was found behind the uterus. She was advised to enter the hospital at once but returned home and resumed her household duties. On February 27th she was attacked with sudden, severe pain in the lower part of the abdomen, followed by repeated attacks of syncope. She remained in bed, attended by Dr. C. Marshall until her coming to the hospital the second of March.

On admission: The flow has continued since the abortion. The bowels have not moved since the 28th ult., and she complains of very severe pain through the abdomen. She was very feeble, unable to walk, the extremities were cold and she seemed nearly exsanguinated. There was slight œdema of the legs and the abdomen was very much distended by fluid and gas. The mucous membranes of the lips, tongue, conjunctivæ and vagina were very pale. No glandular enlargements were noted. The urine had a specific gravity of 1,024 and contained albumen and pus; the pulse was very feeble and the temperature was subnormal.

A diagnosis of probable ruptured tubal pregnancy was made, so that when the abdomen was opened, March 5th, 1896, we were not at all surprised by the pouring out of a large quantity of black, semi-solid blood as soon as the peritoneum was incised. By passing my fingers downward, the top of the slightly enlarged uterus was easily felt and recognized and the right appendage, other than a few adhesions of the ovary, was found to be normal and not removed. The ovary contained a corpus luteum. The left Fallopian tube was much lengthened and its first two or three inches was apparently normal. It, however, continued around backward, much as does the round ligament in front, and ended in a sac attached to the rectum, the uterus being free from the sac. This sac had ruptured and, lying partly in and partly out of it, were the fœtal membranes, the fœtus and a large mass of blood clots. The ovary of this side was apparently normal and contained no corpus luteum. The fœtus was of about six weeks gestation. The appendage was removed and the abdomen flushed with hot water, large clots being washed out of it, even from behind the liver and near the spleen. No drainage was used and the wound was closed with kangaroo tendon, buried both subperitoneally and subcutaneously. 1500 C. C. of normal salt solution was thrown under the skin and she made a complete recovery.

3. Sarah W——, colored, single; 39 years of age, was admitted to Columbia Hospital January 11th, last, complaining of pain through the lower part of the abdomen. She had missed two menstrual periods. Previous to the absence of it the flow was regular, painful and very profuse, lasting about two weeks and containing large clots. An examination shewed the uterus extending to above the umbilicus and containing a number of fibroids, there being one large one low in the pelvis, in front of the cervix. The body of the organ was suspiciously soft and this, together with the history of amenorrhœa, warranted a diagnosis of pregnancy.

A consultation was held and the decision that hysterectomy was advisable was reached. To this the patient consented but later changed her mind about it and left the hospital January 21st.

She was readmitted the 12th inst, and the uterus was still further enlarged and softer and the menstrual flow had not reappeared. She was now four months pregnant and the large fibroid was still in the pelvis. She had returned for the operation, which was done March 16th. Abdominal hysterectomy was done and the specimen shows the fibroids in the main part of the uterus and the one mentioned as filling the pelvis. The woman stood the operation well and her pulse has never reached 100 since the operation. To-day she is perfectly comfortable.

DISCUSSION.

Dr. Jos. Taber Johnson said he had had the pleasure of seeing Dr. Bovee remove the larger tumor containing the fœtus. It seemed as if such cases were more frequent than was formerly supposed to be the case, for this was the third one which had come to his notice within a short while. He himself had reported a case to the Society last week in which the women had been in the fifth month of pregnancy with a large tumor by the side of the uterus and another low down in the pelvis. Then came Dr. Bovee's case, just reported and he understood that Dr. Fry had operated upon a similar case to-day. He thought that gynecologists who were also obstetricians were taking the ground that the greater safety of the woman was conserved by removing the tumor, uterus and all. The operation was a severe one, but it was far safer to perform it than allow the pregnancy to continue so long that a miscarriage might be provoked by the growth of the tumor with the consequent danger of a severe hemorrhage. This danger was so great and the impossibility of the birth of the child later on by the natural channels so evident that this operation was becoming one of selection now, and the good results obtained in these cases seemed to demonstrate the wisdom of performing it. It might not be such a triumph of surgery or obstetrics as it would be if the pregnancy could have been allowed to go on and a Porro operation done, thereby saving the child, but the sufferings were so great in these cases that it seemed justifiable to do the operation at an earlier stage.

With regard to the case of ruptured tubal pregnancy, he said they seemed to be much more frequent than formerly, if we could judge by the frequency with which they were now reported. The numerous successful operations recently performed seemed to emphasize the fact that these cases could be saved if the operation was done before the dangers became too great from hemorrhage or consequent septicæmia.

Dr. I. S. Stone said the cases were all extremely interesting, especially the one of fibroids complicating pregnancy. He wanted to add to the three cases recorded by Dr. Johnson two others which had recently been operated on, one by Dr. Kelley at Garfield Hospital and the other by himself. He had performed the operation on a woman who appeared to be about 55 years of age, so that the idea of pregnancy was not even suspected until the tumor, weighing 18 pounds, was removed. There were fearful mesenteric adhesions in this case so that she bled a great deal rendering it impossible to do as complete an operation as could have been wished. The patient died. He had also recently opened the abdomen of a woman under very similar circumstances. She had been bleeding for the last six months, and according to her own account had had the tumor for five months. She insisted that she was not pregnant. This case showed how unsafe it was to depend upon a patient's own statements regarding pregnancy. She was put upon the operating table and an incision made. A fibroid was found very much smaller than in Dr. Bovee's case, but, like his, situated on the left side. After discovering the existence of pregnancy he thought it only just both to the mother and fœtus to let the pregnancy continue and later do a Porro or Cæsarean section, preferably the former, by means of a wire clamp. He hoped that the patient would consent to remain under observation. She was doing nicely since the operation. He believed it would be better to allow the pregnancy to continue two or three months longer and then operate.

Dr. Bovee, in closing the discussion, said that there was an element in Dr. Stone's case, which was wanting in his; that was an ignorance of the existence of pregnancy. Dr. Stone might have been justified in closing the abdomen of his second patient and allowing the pregnancy to continue if he was sure she could be kept under observation, but if not the case might give much trouble later on. The state of the woman's own feelings might be an index in such cases, so that if she desired to have children the pregnancy might be allowed to continue and an attempt made to save the child by a Porro operation, otherwise he thought it would be wiser to remove it at once. Moreover, he thought that if she continued to bleed as she had done for six months past she would not be in condition for a Porro operation when the time came. His own patient had been to eight or nine different physicians in regard to having the operation done since he had first seen her and then came back to him deciding to have it done. He had thought it wiser to do it at this time rather than wait for the full time of pregnancy.

REPORTS OF EIGHT CASES OF HYSTERECTOMY WITH SPECIMENS.

Dr. Joseph Taber Johnson presented a group of specimens, all of which had involved hysterectomy. Two were vaginal hysterectomies for cancer of the uterus and one for intra uterine fibroid, and five were supra-vaginal hysterectomies for uterine fibroids. The group of vaginal hysterectomies occurred in women about the time of the menapause. They all presented about the same symptoms and the same indications for operations. Two were done at Columbia Hospital on the same day. The third was done in Dr. Johnson's private sanatorium. These three uteri were removed with clamps instead of ligatures. They all made an unusually rapid convalescence, the two at Columbia Hospital being up on the tenth day, walking about at the end of two weeks and going home feeling very well at the end of the third week. The lady in my hospital had been weakened by previous hemorrhages, and her convalescence was two weeks longer, when she drove with her husband to her home eight miles in the country.

Case four was a large uterine fibroid removed from a patient, in Dr. Johnson's sanatorium, who was at the same time five months pregnant. She came from Falls Church in Virginia, being sent by Dr. Talbott of that place. Mrs. B. had been seven months married and while she had been aware that she was not altogether well, she did not know that she had a fibroid tumor. Along with the first symptoms of pregnancy there was an unusually rapid enlargement of the abdomen and during the past two months the increase in size had been altogether upon the right side. Constant pain and pressure symptoms, indigestion and inability to walk, induced her to consult Dr. Talbott, who at the end of the fifth month brought her to Washington. Her symptoms had now become so painful that she was practically a bed-ridden invalid. When her condition, and the risks and dangers of an operation were fully explained to herself and her husband, they both at once decided in favor of an operation which was performed early in March resulting in the removal of the specimen here exhibited, consisting of a six-pound fibroid tumor growing from the side of the uterus, which was enlarged sufficiently to contain a five months fœtus. This was practically a Porro operation. Dr. Johnson regretted that he could not allow this patient to go on to the viability of the child, but he doubted if the patient would have survived her distressing symptoms a month longer. The patient made an excellent recovery and returned to her home a month after the operation.

The fifth case was Miss X, white, single, age about 35, had been suffering from the effects of a bleeding fibroid for many months. She was exceedingly nervous, exhausted and at the time of the operation called herself a physical and nervous wreck. For the few days preceding her entering the sanatorium she fainted several times from loss of blood, being compelled to remain flat in bed with only a very thin pillow under her head. She was carried down stairs in her own house and upstairs in the sanatorium. As soon as preparation could be made, supra-vaginal hysterectomy was done by the Baer method and the tumor removed, here exhibited. She has since made a fairly good recovery and returned to her home. It will probably be a year before she recovers from her loss of blood, neurasthenia and indigestion, which preceeded her operation.

The sixth and eighth cases were all supra-vaginal hysterectomies by the Baer method done mostly for pain and pressure symptoms. The specimens were exhibited and their peculiarities explained. These patients all made good recoveries. Dr. Johnson stated that at a meeting of the Southern Surgical and Gynecological Society, held in Washington, November, 1895, he had read a paper reporting seventeen cases of supravaginal hysterectomies for uterine fibroids with one death. With these reported to-night it brings the number up to twenty-five with only one death and this occurred five week after the operation from intestinal obstruction.

DISCUSSION.

Dr T. V. Hammond asked Dr. Johnson what was the effect on the patient of the Porro operation.

Dr. Johnson replied that he had operated on her nine days ago. She was now doing nicely, and he had every expectation that she would make a good recovery.

Dr. Adajah Behrend stated that he had had a case of pregnancy complicated with fibroid tumor, from which the woman suffered all the pains described by Dr. Johnson. Dr. H. D. Fry made an exploratory laparotomy, when, finding the tumor attached to the uterus, he had asked Dr. Behrend whether he should do a Porro or not. The latter advised that as the tumor was attached to the upper portion of the fundus and but little likely to complicate labor the abdomen should be closed and the fœtus allowed to go to full term. This was done, and the child was delivered by Dr. Smith and myself by forceps. Since the birth of the child the woman had been almost entirely free from the pain she suffered from during pregnancy though nothing had been done towards the removal of the tumor. The child was now nine or ten months old. There had been a good deal of hemorrhage after delivery, but the woman had since done well. Prior to delivery she had been in such great pain that he had been obliged to administer morphia for three months. He mentioned the case to show that even with large tumors women might sometimes go to full term.

Dr. Thomas C. Smith said that the above case had been very interesting to him, but he did not think it should be placed in the same category with Dr. Johnson's. Dr. Behrend had called him in to apply forceps which he did, extracting the child without much difficulty, but the abdomen remained so large afterwards that he, not knowing of the existence of the tumor, thought there must be a second child. When Dr. Behrend told him of the tumor he introduced his hand into the uterus and found the walls smooth, but a large fibroid appeared to be growing right up from the fundus without any pedicle. The uterus contracted well without much hemorrhage, but there appeared to be a well defined sulcus developed between the tumor and the uterus as the latter contracted.

Dr. J. Wesley Bovee, speaking of fibroids complicating pregnancy, said that the subject was discussed in the Obstetrical Society about a month ago, and the concensus of opinion seemed to be that fibroids complicating pregnancy, with the prospect of complicating labor later on, should be removed. Sometimes, however, when the tumor was located high up, or moderately high up, upon the uterus it would ascend as pregnancy progressed, and labor would not be interfered with. With cases like Dr. Johnson's, however, the prospects were not very favorable for an easy labor, and the general opinion was that where there were fibroids in the uterus near the cervix liable to complicate labor the operation should be done, the fibroids removed and if necessary, (which is very probable) the uterus also. Tumors at the top of the uterus would not complicate labor but they were a complication of pregnancy, the chief danger in such tumors being, however, that they were liable to set up peritonitis and to cause pressure on the diaphragm.

Another specimen presented by Dr. Johnson had been removed by abdominal section instead of by anterior colpotomy because the doctor had thought it too large to be removed by the latter procedure, but he (Dr. Bovee) believed it could have been removed by anterior colpotomy, that an opening could have been made between the uterus and bladder large enough for that purpose. He believed that by making a circular incision, about an inch long, around the cervix, connected with another, two inches long, down the anterior wall of the vagina, dissecting back the angular flaps and lifting the bladder it was possible to get a sufficiently large opening. This method had the advantage of allowing of the removal of the uterus with the appendages much more rapidly than by the abdominal route. By ligating from above downwards the operation could be done much more easily than the ordinary vaginal hysterectomy—operating and ligating upwards. This method also had advantages in operating for the removal of cancer. There it was necessary to remove as much of the broad ligaments as possible, and by bringing them down and ligating them from above great advantages would be obtained over the abdominal and regular vaginal operations.

MEETING OF MARCH 25, 1896.

Dr. S. C. Busey, President, in the Chair.

Large Uterine Fibroid, Death from Hemorrhage.

Dr. Jos. Taber Johnson presented a specimen of a very large uterine fibroid, which he had that day removed post-mortem. He had been taken to the house of the patient by the family physician to tap the patient for the relief of very urgent symptoms. She was found to be so far gone however, from repeated hemorrhages that nothing could be done. She died the same afternoon. A post-mortem was made the next day at the request of her husband, who said that he had urged her for a number of years to have her tumor removed. Acting however upou medical advice she had steadfastly declined to have it done. The post-mortem demonstrated that until a very recent time the tumor had been free from adhesions and could have been easily removed. The specimen is presented for the lesson it teaches.

Uræmia Complicated with Opium Poisoning.

By Dr. T. A. Claytor.

The following is the history of a case admitted to the Pennsylvania Hospital, during my term of service as a resident physician on the medical wards of that institution, which has seemed to me to be of sufficient interest to justify its report:

On July 20th, 1893, Henry L., age 45, an Englishman, formerly a sailor, was brought to the receiving ward by the police, who had found him lying in an open box-car, exposed to the full force of the midday sun. In his pocket was an empty ounce phial, labelled "Laudanum". At first glance, it seemed evident that he was suffering from poisoning by that drug, for his pupils were contracted to a pin-point, respirations sighing and twelve to the minute, face deeply cyanosed, pulse full, but compressible, 122 to the minute, coma profound. His temperature was found to be 105.4–5° F.

A mild attack of thermic fever was then thought probable, but on closer examination, a strongly urinous odor was detected on the breath, also marked œdema of feet and legs. The urine obtained by catheterization showed a sp. g. of 1020, acid reaction, a trace of albumen with an abundance of pale dark granular and oily tube casts. The diagnosis then made and afterwards concurred in by my chief, Dr. Morris J. Lewis, was uræmia, opium poisoning and thermic fever. As to the first two, I do not think there is any question of doubt, but as to the thermic fever, we have no positive data, upon which to go, except the high temperature, and exposure to intense humid heat, in a close place, as the day was very hot and damp.

For obvious reasons apomorphia was not suitable, nor was mustard water or any other mechanical emetic available, because of the deep coma. An attempt to introduce the stomach tube was followed by slight emesis, but embarrassed the respirations to such an alarming degree, that it was necessarily abandoned. The condition was critical, something had to be done, and that without delay, if the life of the patient was to be saved. As the cold bath answered two of the most marked indications, namely: antipyretic and respiratory stimulant, it was at once instituted. The man was accordingly placed in a cold bath, with an ice cap to his head and the hose played upon him. At this time he was comatose, there was constant twitching of the fingers, but no general convulsions.

Examination of the heart, lungs, liver and spleen proved negative. The reflexes were slightly exaggerated. In twenty-eight minutes his temperature was 101.1–5° F., pulse 118, respirations 20 and he showed signs of returning consciousness. Eight minutes later he was removed from the bath.

Though his temperature had been reduced and his respirations had risen to normal, the condition was very serious, cyanosis was even more marked, pulse weak and running. He was now given hypodermics of aromatic ammonia, in addition to brandy, strychnia and digitalis, which he had received during the bath, friction was continued; atropia was used sparingly because of the uræmic condition.

At 4:13 (25 minutes later), respirations were becoming deeper and more regular, 21 to the minute, color improving, pulse 136, temperature 105.3–5. At 6 p. m. the general condition was improving, temp. 102.1–5, pulse 137, resp. 22. He was now removed to the ward and freely stimulated with digitalis and whiskey. At 10 p. m. the temperature rose to 105, there were at this time, marked general convulsive movements, which prevented the accurate count of pulse and respirations, but the latter were again shallow and sighing. Patient was again plunged, reducing the temperature to 103.4–5°.

At seven the following morning, he aroused sufficiently to give his name, but immediately relapsed into profound stupor. Urinous odor was very noticeable. Urine was found to contain nine per cent of albumen by bulk and casts granular and oily. During the day he received jaborandi, elaterium and croton oil, without any apparent result.

At 9:30 p. m. the temperature which had been as low as 102.1–5 shot up to 105.2–5 for which the cold bath was again tried, without effect as to reduction of temperature but with marked revival from the coma. He then vomited and shortly after 12 m. had a free evacuation, and was quiet the rest of the night, with a gradual fall of temperature to 100.3–5.

The next morning (second day from onset) there was a marked improvement, the patient was perfectly conscious, and gave this account of himself: That he had for some time past, been suffering from headache, with dizziness and dimness of vision, had been admitted to one of the large hospitals of the city, but was discharged as having nothing the matter with him; became melancholic, had delusions of persecution and took an ounce of laudanum with suicidal intent. On July 22nd (fourth day from onset) though bright and cheerful, was not rational. The temperature fluctuated until the 27th (ninth day from onset), after which it remained normal. Did not regain mental balance permanently, until August 2nd (fifteenth day from onset).

Though his recovery was slow and

hindered by a mild attack of bronchitis, he gradually improved, and at the time of his discharge September 15th, was apparently well, except for a trace of albumen, and a few casts, which continued to be present in the urine.

The above history naturally suggests the following questions: Was the high temperature in part, thermic fever or was it due wholly to the uræmic poison? Was the uræmic attack brought on or at least hastened by the large dose of opium?

The first brings us to the consideration of the temperature in uræmia, upon which opinions seem to differ. According to Labadie-Lagrave (Urologie Clinique et Maladies des Reins) reduction of the temperature below the normal in uræmia was noted by Kien (1865), Roberts (1868), Hertz, Bilroth, Hutchinson, (1870); but Bournville (in 1872 and '73) was the first who made a minute study of the symptoms of uræmia, and he came to the conclusion, that, except in puerperal eclampsia, where the temperature reached 104 ° to 105.8 °, the body heat was lowered.

In 1875 Behier, Lionville, Lacombe and Hanot confirmed this view. However, it has been proven more recently that if it is true, that in chronic uræmia, there is reduction of temperature, on the contrary in acute cases, one observes often an elevation, more or less great. Numerous cases have been reported, where the temperature reached 104 ° F. Jaccoud states that in the common forms of uræmia, the temperature sometimes remains normal, but more frequently it rises to 102.2 ° F. or higher. Such was the case in transitory attacks, which ended in recovery; on the contrary, in fatal uræmia, the temperature was nearly always lowered, then underwent an ascension high and rapid, or fell to 95 ° F.

Bartels claimed a usual rise in temperature in acute uræmia. In case of convulsions it may reach 106 ° or 108 ° F.; seen especially as a terminal rise in cases which had an unfortunate issue. On the other hand, there may be a great reduction even to 93 ° or 91 ° F., most frequently in cases which end in deep coma, without marked symptoms of motor irritation. Delafield (Am. Textbook) claims a rise of temperature above normal. Osler (Practice of Medicine) says the temperature is sometimes elevated, but more often it is depressed, and may sink rapidly after the attack.

Hughes & Carter (Clinical and Experimental Study of Uræmia, A. J. M. S. S. 1894 N. S.), state that the temperature is not a fixed symptom. It may be normal or above or below. High temperature is more common in parenchymatous cases. In an analysis of forty cases of uræmia pure and simple, the temperature was found to be rather more often below than above normal, the highest being 104.3 ° and 103.8 ° F., few above 100 ° or 101 ° F.

I am told by Dr. Joseph M. Spellissy, who had the care of nearly 100 cases of thermic fever at the Pennsylvania Hospital, during the summer of 1892, that a secondary rise within three or four hours after a primary temperature of 109 ° or more, which has been reduced to 100 ° is usual. A second application of cold reduces this hyperpyrexia to moderate fever, lasting a few days. A secondary rise coming on after twenty-four hours, from onset and primary treatment, is the signal of a beginning complication or sequel.

From the above, it may be seen that the high temperature both primary and secondary, may be attributed to uræmia alone, at the same time, in view of the facts that the highest point was reached before there had been any convulsive seizure, and the recovery of the patient, together with the prolonged exposure to intense moist heat, it seems possible that the hyperpyrexia was, in part at least, due to thermic fever.

The second question, the uræmic attack brought on or at least hastened by the large dose of opium, brings us to inquire into the effect of morphia in disease of the kidneys.

According to W. Eliasson, quoted by H. C. Wood (Therapeutics, Principles and Practice) it seems to be established that morphia, at least in part, is eliminated by the kidneys; when given in large doses, morphia appears freely in the urine, but in small doses it cannot be found, although a substance is present, giving some of the reactions of morphia, from which it is derived. Wood thinks that since in serious kidney disease, the chief channel through which they escape is choked up, opiates should be used with extreme caution. He also states that in one or two cases at the Philadelphia Hospital, the administration of morphia was followed by death. Dickinson says that it is not seldom that the comatose state has come on before its time, because of the administration of opium.

Labadie-Lagrave names opium among drugs to be avoided in nephritis. On the other hand Dr. A. Loomis in 1873, advised the administration of morphia in sufficient dose to control the convulsions, claiming that at the same time it produced profuse diaphoresis, facilitated the action of cathartics and diuretics, especially digitalis. Delafield (Am. Text-Book of Medicine), says: "It is safe to give opium, if the arteries are contracted, but if dilated a very little, may cause poisoning and death." Arteries are contracted in acute uræmia and dilated in chronic. Osler advises morphia; Strumpell approves of it only in cases of diarrhœa and vomiting. Hughes and Carter think that full doses may be used with advantage. Its effects must, however, be carefully watched, as they have seen unquestionable bad results from it, especially where uræmia complicates fevers.

The majority of the clinicians of the present day advise the use of morphia in uræmia, at the same time, from a physiological standpoint it is contraindicated, and while I do not question its advantageous use in moderation, an over-dose is, I think, capable of doing harm by hastening the coma, as was the case above.

I wish here, to thank my friend and former chief, Dr. Morris J. Lewis, for his kind permission to report this case.

DISCUSSION.

Dr. Geo. N. Acker said he would not hesitate to use opium in either acute or chronic nephritis. Indeed it was his frequent practice to administer one-fourth grain of morphia with 1–150 grain of atropia in these cases, and he believed that he had saved life by this means. He recalled the case of one patient with nephritis who never got any rest until opium was tried. Another interesting question presented by the paper was whether the high temperature had been due to thermic fever or to uræmia. In all his experience he had never seen a case of nephritis with such high temperature, and it was his opinion that it was due to thermic fever.

USE OF FORMALIN IN OPHTHALMIC PRACTICE.

By Swan M. Burnett, M. D., Ph. D.

Formalin is a forty per cent watery solution of formaldehyde. Formal the German preparation is of approximately the same strength.

Formaldehyde itself is a strong escharotic and one of the most powerful germicides and antiseptics known. Animal tissues suspended in its fumes are preserved from putrefaction. As a tissue preserver formalin has no superior, and will no doubt supplant alcohol for that purpose, since it is much cheaper, and has many other advantages as a preserving agent. In the first place it does not act by extracting the watery constituents from the tissues, and there is, therefore, no shrinkage and consequently no distortion of the elements from their normal relations. The tissues also retain much of their original color and transparency. Even the crystalline lens does not become completely opaque under its influence for quite a long while. In the preparation of tissues for section for microscopic examination, therefore, it is vastly superior to alcohol or Muller's fluid or any other agent that has been yet employed for that purpose, and it has the further advantage of being very rapid in its action. An eye will become sufficiently hard for cutting in three or four days in a five per cent or ten per cent solution which is the strength usually employed as a hardening agent.

The ophthalmological world first became aware generally of the value of this quality of formalin through Prof. Leber of Heidelberg, at the Ophthalmological Congress in Edinburgh in 1894. The credit of its first use, however, I believe belongs to Hermann.

These qualities of the chemical are already recognized by many but are not, I think, as widely known as its merits demand, and for this reason I here call attention to them again.

My special purpose in this short paper is to set forth its therapeutic value in ophthalmic medicine and surgery. A germicide of its great power—first noticed by Lowe in 1888,—is an important addition to our list of remedial agents, not only because of its efficiency, but likewise because of certain other advantages which it possesses over any other known antiseptic of equal power. It has little if any toxic properties. Up to this time no case has been reported of any deleterious effect from its use.

It has one other property peculiar to it or certainly not possessed by any other drug to the same degree, and that is its power of rapidly diffusing itself through the tissues. This applies not only to the dead tissues but to the living as well. One great drawback to the efficiency of sublimate as we know, in addition to its toxic effect, is its power of coagulating the albumen at or near the surface, which not only forms a barrier to its further penetration of the tissues, but even constitutes a good nidus for the development of pathogenic germs. For this reason, therefore, formalin should be more useful than any germicide we have for that class of infections in which the microbes penetrate below the surface and into the substance of the tissues.

Most excellent results have been obtained from its use in infecting ulcers of the cornea and purulent conjunctivitis. My own experience with the remedy in both forms of disease has been very encouraging. The corneal ulcer can be touched with a solution of 1 to 200 or 1 to 500, once every day, and for general use as an antiseptic a collyrium of 1 to 1,000 or 1 to 2,000. I have a few times cauterized the ulcer with 1 to 100. One case of serpiginous ulcer I treated with formalin alone, and it turned out more satisfactorily than I have seen such cases by the old methods. In muco-purulent and purulent conjunctivitis my experience with it has been most satisfactory. I have not yet relied upon it alone in the severe forms of purulent conjunctivitis, but in the milder forms I have, and have had no reason to regret it. But even in the severe cases I use it as a general antiseptic in addition to the silver nitrate. In acute catarrh of the conjunctiva (pink eye) it has acted most promptly when used as a collyrium of the strength of 1 to 1,000 or 1 to 2,000 applied every four hours. I have also tried it in those cases of chronic conjunctival congestion with diminished secretion which are often so rebellious to treatment, and in most instances with good results.

For ulceration of the edges of the lids, so far as I have had any opportunities of using it, the remedy has seemed to act well. The dosage in such cases is to be regulated by the desired effect, from 1 to 100 as a mild caustic, to 1 to 2,000 as a stimulant. I can commend it to the surgeon and dermatologist as most valuable in ulcers of the skin of all kinds and especially for those indolent ulcers with hard edges resembling epithelioma. The effect of the remedy on one such ulcer of the lower lid was very decided and prompt.

For the disinfection of instruments and keeping them aseptic, it has the great advantage of not dulling the edges of knives. It can also be used for washing out the conjunctiva previous to operation on the eye, though its disadvantage for this purpose is the slight burning sensation it causes sometimes even in solution of 1 to 1,000. This, however, is trivial.

So far as my knowledge of the literature of the subject goes it has been used therapeutically in eye affections by only a few. Guaita, of Siena, and two surgeons in England have made the only publications I have seen, and they have been brief.

DISCUSSION.

Dr. C. R. Dufour said that formalin was a forty per cent solution of formaldehyde in water. Formaldehyde was a gaseous body made by the oxidation of methyl alcohol, its chemical formula being CH_2O. It was quire soluble in water and for this reason was put on the market in solution, formalin, mixed with water in all proportions therefore, it was easy to make any solution of any strength desired. As a germ destroyer it was a valuable agent, as it was not affected by the presence of any organic or inorganic substance; and attacked only the contagious material. It could be employed in either a liquid or gaseous form, the gas being given off on heating it. It was non-toxic, and altogether it was a much more available germicide than the bichloride of mercury or any other substance used for that purpose. In ophthalmic practice it was being used successfully in all inflammatory conditions due to the presence of germs. It was a valuable agent for sterilizing collyria; solutions of atropine, eserine, cocaine, etc., being kept unchanged for over a month. It did not irritate the eye, and caused only a slight smarting, which soon wore off. The usual strength for use in the eye was 1 to 2,000. Dr. Valude said that it did not attack metals and considered it the best antiseptic solution to keep instruments in before and during operations. It destroyed the bacilli of diphtheria and for that reason would be a good remedy for spraying the throat, also as a topical application to the membrane. As a spray it might be used in the strength of 1 to 500 to 1 to 1,000, and as an application direct, 1 to 60 or 1 to 100. It was also the best agent for hardening specimens, as it had the power of preserving tissues in their normal transparency. The cornea and lens remained clear in it for a very long time. As a hardening agent it should be used in about ten per cent solution; as a preservative, in about one per cent. It was a better preservative than alcohol as it did not dehydrate the tissues as alcohol does. It was also valuable in rendering aseptic such articles as sponges, clothes, books, and also rooms, rendering them sweet, clean and pure.

Dr. Forwood stated that he had had no experience with formalin as a therapeutic agent, but that he had been experimenting with it at the Barnes Hospital during the past three years with the object of determining its value as a surgical antiseptic. His attention was first called to it by the fact that in the bacteriological laboratory it was used to stop the growth of bacteria in the culture tubes. Formaldehyde gas was the agent used in this way and he conceived the idea that it might be applied in other ways as a sterilizing agent in the operating room. It was not useful in sterilizing instruments, because it attacked the metal immediately and caused a red deposit of oxidation. Unfortunately, also it could not be used on the hands because of its caustic effects upon the skin. In one respect he had found it very valuable, and that was in sterilizing sponges. It was capable he thought of restoring sponges to surgical use without danger of sepsis. It had been feared at one time that the use of sponges would have to be abandoned in surgical operations but now they could easily be sterilized in formaldehyde. After washing the sponges thoroughly in the usual way they were placed in a jar containing a few ounces of formalin. The formaldehyde gas rose and penetrated every part of the sponge and destroyed the germs. As an example of its penetrating power he stated that it would harden gelatin which had been liquified by bacteria, and also penetrate and destroy the germs to the bottom of agar cultures. After a sponge had been treated in this way it was not safe to handle or use until it had been well washed with warm sterile water. His first experiment on sponges had been with one taken from the dead house—one that was thoroughly saturated with germs. He suspended this sponge in a jar of formalin and made cultures from it at different times, and after three or four days no further growth appeared. It had now been suspended in the jar three years without injury. Sponges could thus be very conveniently kept in a jar with a little formalin and were always ready for use. In the same way he had been able to sterilize all kinds of rubber material, kangaroo tendon, catgut, silk worm gut, silk, etc., without injury. It did injure silk elastic catheters, however, which was unfortunate, for they were now very difficult to sterilize. They might be immersed in formaldehyde, but in a few days they become rough.

Dr. McArdle said that while his experience with formalin might not have been so extensive as that of Dr. Forwood he had used it for a considerable time even on the hands and instruments without any bad results. To show its power of destroying pus he had used it on ulcers and then washed them with peroxide of hydrogen when the effervescence usually produced when the peroxide comes into contact with purulent matter would no longer be produced. He had used it in purulent conjunctivitis, gonorrhœa, venereal ulcers, and for washing out the nose and throat. The absence of toxic properties fitted it very well for washing out the bladder. The fact that it did not dull instruments was another point in its favor, and he believed it was destined to displace bichloride of mercury and carbolic acid.

Dr. S. B. Muncaster stated that solutions of formalin 1–1,000 or 1–2,000, were used with good result in washing out the lachrymal canal. It was also one of the principle ingredients in Borolyptol which was now being used so much.

Dr. Robert Reyburn called attention to the value of formalin in diphtheria. He, himself, had been so fortunate as not to have had any cases of diphtheria of late, but Dr. Alleger had treated nine cases with success. It was used as a fifty per cent solution in a spray, and was very penetrating. In microscopical work it was superseding every other hardening preparation we possessed.

Dr. Jos. Taber Johnson said that he had first used formalin as a preserving fluid in the strength recommended—ten per cent—but found it too strong and his specimens were ruined. He had then used it to disinfect the hands but found its effect very disagreeable. They felt as if they were covered over with some very dry coating, and he could not get the moist feeling back in his hands for twenty-four hours afterwards. Another disagreeable feature he noticed about it was that the fumes were very irritating, making the eyes smart, the nose run, and causing coughing and sneezing. He found by his own experience that he had been using it too strong; in the Obstetrical Society one per cent solutions were recommended. He believed that in weaker solutions it could safely be used on the hands and that it would not shrivel up specimens.

The point he wished to make, however, was that the restoration of sponges to surgical use was one of the most important results that would come about from the use of formalin. He had been much bothered with unsatisfactory substitutes for sponges, and sighed constantly for their return. If it were possible to disinfect sponges with formalin that would be a very great blessing to surgery. In his abdominal operations he had thrown sponges away after using them once. This was troublesome and expensive.

Dr. J. Ford Thompson said that the struggle for practical antiseptics had been going on for many years, and this evening had given him more encouragement for antisepsis than he had ever before had. If this formalin would do what was claimed for it we were in the neighborhood of ideal surgery. If a 1–1,000 solution of formalin would destroy the staphylococcus, streptococcus and tetanus bacillus our dreams were about to be realized. He had not been carried away by the expressions of specialists, and in the last few years the tendency had been to abandon antisepsis and rely on asepsis, this change having been brought about by a lack of confidence in antiseptic agents. Dr. Forwood, however, had subjected this drug to a most crucial test in the disinfecting of sponges. If formalin would do all that was claimed for it he regretted that he had been using it to preserve pathological specimens when he might have been preserving live tissue. But the question was were these things true that were said of it. Similar preparations were brought before his attention nearly every day, but he had not had sufficient confidence in any of them to use them in preference to those he was familiar with. For years past he had relied upon boiling of the material he used. But it was notorious that the boiling point of water, while it would destroy the germs failed to destroy some spores. Yet it was claimed that what a temperature of 212 degrees maintained for hours could not accomplish, formalin could accomplish in a few minutes. He had been accustomed to scrub his hands energetically with antiseptics until the skin was almost rubbed off, (and even then someone would come along and claim to find pathogenic bacteria under the nails) yet with this preparation all that will be unnecessary. Now that the millenium had come with the introduction of this preparation there would be no further use in getting up complicated sterilizers. He hoped all these things were really true, but it looked to him as if the thing were going beyond reason, and it did not appear to him that it had been taken up as a matter of such importance should be if there was anything in it. And it seemed to him, also, that the great men all over the world, whose work he followed closely, appeared to have overlooked the wonderful properties of this drug. The question was, however, were men getting the brilliant results they claimed in this simple way, while, try as he might, he sometimes got results that he regretted. He was surprised, to find that he was so much behind the times, but he would begin to-morrow to use formalin and to do everything that a man could do to get the results advertised. He had been using antisepsis, in a modified form, ever since Lister first brought it forth. It did not appear that hospital records show any difference between the results of one man who used the complete antiseptic method and that of another who used absolute cleanliness only. Lawson Tait used to say that he would dress his wounds with bacteria if he could get enough of them. It took a long run and a close one to establish great principles, and he would hardly give the snap of his finger, he said, for the opinion of any one man. Very many of the things that sprang into prominence had turned out to be myths, and so would some of the recent things in surgery. He spoke of iodoform as one of those things which had been highly lauded as an antiseptic, and now bacteriologists were saying that it was not an antiseptic at all, and that germs planted in it would grow. The laboratory test was not by any means a certain one, and practical experience had demonstrated that iodoform did stop the growth of germs.

Dr. James Kerr thought that a mistake was made in accepting the conclusions of special departments in reference to antiseptics. So far as the general management of wounds was concerned the profession had come to the conclusion that an aseptic tissue which could be kept so during operation would remain aseptic, and that a tissue once infected would remain so in spite of everything done to render it aseptic. Attempts to sterilize pus cavities, etc., had been unsuccessful from the fact that the germs were found to have penetrated into the tissues.

He had used formalin extensively, but had found it impracticable as far as use on the hands was concerned, and he regarded it as inferior to permanganate of potash in disinfecting offensive cavities. He had tried it in cystitis without benefit. He also used it in tetanus from a gun shot wound. After cutting out the affected tissue he tried formalin using it in sufficient strength to change and harden the tissues of the leg, but it had no effect on the growth of the disease. He had also used it in open wounds, but he was not satisfied with the result. Formalin was impracticable in many respects and inferior to the commonly used antiseptics. The fact that good results were obtained with it in the laboratory had no weight, for you could not get the same effects on living tissue that were possible in the laboratory. What had been said in the laboratory about the inutility of iodoform would always have an effect upon any statements coming from that source. He knew from practical experience that iodoform had no equal in controlling the growth of germs in the tissues.

Dr. Crossan asked Dr. McArdle in what strength he had used formalin for gonorrhœa, for he had used it in three cases and the results had been worse than negative.

Dr. McArdle replied that he used a one per cent solution.

Dr. E. L. Morgan thought that there could be no assurance that formalin was really a forty per cent solution of formaldehyde, for it was an unstable compound. At the same time if a temperature of 212° was required to destroy bacteria boiling was also uncertain, for though at sea level 212° were necessary to make water boil, in high altitudes it boiled at a lower temperature.

Dr. Richey did not see any advantage in the use of formalin in ophthalmic work over bichloride from which there is no danger of intoxication as so little of it is used at a time. He had been able to remove the great objection to bichloride as a germicide, the coagulation of albumen, by using alumnol with the bichloride. Alumnol prevents the coagulation of albumen by the corrosive chloride. When Dr. Burnett has practiced his subconjunctival injections of formalin, he (Dr. Richey) would like to know the result, but he would not care to try it himself.

Dr. E. Oliver Belt thought that the introduction of formalin into opthalmic practice would have excellent results if it acted as Dr. Burnett claimed. Especially would it be useful in ulceration of the cornea due to purulent conjunctivitis. This disease caused more blindness than any other, twenty per cent of the cases of blindness throughout the country being due to it. If we possessed a remedy which would prevent sloughing of the cornea we would get good results in the disease, and formalin promised to do that. He had tried it recently, at Dr. Burnett's suggestion in a case of purulent conjunctivitis, with very good results. The case was one of Dr. Bowen's and he had treated it with antiseptics. When he (Dr. Belt) saw it the disease was beginning in the sound eye. He had the eye washed every hour, day and night, with bichloride solution, 1–4,000, and nitrate of silver, ten grains to the ounce once a day and yet the trouble advanced, and in a week's time the second cornea became affected. At that time Dr. Burnett suggested the use of formalin and he applied it at once. There had been some sloughing, but the day after applying formalin the slough had disappeared and the ulcer was clear. There had been a great deal of chemosis, and the ulceration threatened to destroy that eye as it had the other. He scarified the conjunctiva and continued to use formalin, 1–60, once a day and 1–1,500, instead of the bichloride every hour. Under this treatment the chemosis disappeared and the eye improved. This was only one case, to be sure, but he felt confident that formalin had saved this patient from blindness. At the same time that the improvement was noted he had changed from atropine to eserine in the treatment, and he did not know what effect this had had.

Dr. Burnett, in closing the discussion, said that he had had no idea of precipitating such a debate on antiseptics. He had thought that formalin was known to all surgeons and was being used for what it was worth. He did not claim that it was the best preparation yet known, but he did think it had some properties which none other possessed. He had not, fortunately, observed the effect upon instruments which Dr. Forwood spoke of, possibly because he did not use it in such strength, as he had done. He did not disinfect his instruments with formalin—he always boiled them—but simply *kept* them aseptic in a solution of formalin. He used it 1–2,000, and in that strength it did not affect the skin to any great extent. As to its penetrating effect, he believed it had greater power in a weak solution than any other antiseptic. He was glad to hear Dr. Forwood's statement of its efficacy in disinfecting sponges, but he believed that general surgery would benefit by this more than opthalmic surgery. It was not his purpose, in presenting this paper, to advocate the discarding of cleanliness, and he hoped Dr. Thompson would not abandon it, but would try formalin in connection with it. Its power of penetrating mucous tissue was what led him to try it in diseases of the conjunctiva. Bichloride did not reach them, and be believed that formaldehyde would.

MEETING OF APRIL 8, 1896.

Dr. S. C. Busey, President, in the Chair.

SPONTANEOUS RUPTURE OF AORTA FROM ATHEROMA.

Dr. D. S. Lamb presented a specimen consisting of the arch of the aorta and adjacent organs of the mediastina. The lumen of the aorta was dilated and the inner coat showed extensive atheroma. Just beyond the origin of the left subclavian artery was the apex of a triangular rupture, running downwards longitudinally one inch and with a base one inch wide; from this base there extended transversely to the right 1–5 inch another rupture, also triangular in shape, its apex to the right, its base to the left and one-half inch wide. The rupture extended through all the coats. The resulting hemorrhage had distended the mediastina, to a thickness just above the diaphragm of three inches. The lungs were collapsed; right pleura distended with dark blood and a small quantity in the left.

The patient was a white man, age 76, who had retired from business about twenty years before and lived a quiet life with but little exercise. His appetite was good and he became somewhat fat. His health was generally good except for occasional pains which he thought to be rheumatic and for which he took colchicum with relief. In 1893 he had a left hemiplegia from which he almost completely recovered. March 14, 1896, he had sudden severe pain in the region of the heart, but deeper seated; pain in the back between the shoulders but no tenderness; pulse sixty and regular; arteries somewhat inelastic; no dyspnœa;

no rise of temperature. Gave morphia hypodermatically with relief of pain and sleep. Sixteenth, pain recurred. Gave anodyne with relief. He now slowly improved, the surface however remaining pale and he was unable to stand alone. By the nineteenth he had nearly recovered his usual comfortable condition when about 10 p. m. he had a recurrence of pain much more severe than the others and died in five minutes.

The necropsy showed the conditions described; the heart weighed seventeen ounces, slightly enlarged and fatty; atheroma of whole length of aorta with some atheroma of aortic and mitral valves. A microscopical examination by Dr. Walter Reed, Army Medical Museum, showed extensive infiltration of aortic coats with blood, part of it undergoing organization. The kidneys showed chronic diffuse nephritis and slight amyloid change.

There were here three distinct paroxysms of pain with equally distinct intervals. The last paroxysm corresponded doubtless to the hemorrhage into the pleural sacs; but why the rupture of all the coats did not cause speedy death in the first place seems unexplained.

Formaline as a Disinfectant.

Dr. Wm. Forwood presented a jar of sponges disinfected with formaline; also a couple of instruments which had been immersed in formaline over night and that showed the characteristic deposit of oxidation.

DISCUSSION.

Dr. Thos. E. McArdle, said, of course if formaldehyde gas does no more than sterilize sponges it will be an important contribution. Dr. Forwood has submitted some instruments which were kept in formaline and have become coated with a deposit, but I wish to assure the members that with a bit of cotton the coating can be rubbed off, and the instrument will look cleaner than before. Since the matter was discussed here last week I have been experimenting with formaldehyde in all strengths from one per cent to forty-five per cent. I put instruments in this strongest solution and left them in three days, and when I took them out the coating on them was very thick but could be rubbed off very easily. I noticed, also, that with this strong solution—forty-five per cent—the hands were rendered numb, but without tingling as when we use carbolic solution, and I think that formaldehyde gas will have a position, which it will retain, as an antiseptic. What I do not understand is, that if it is the formaldehyde gas which is efficacious, as Dr. Forwood claims, why, in the very strong solutions which I used for three days the instruments were not affected except where they were moistened by the solution. The deposit does not appear on the parts which are not submerged, but only on those that are.

Dr. Forwood: The result of my experiments with formaline as a surgical disinfectant amounts simply to this: that it is an excellent thing for sterilizing sponges. Aside from that it will play no part.

Dr. McArdle: How about its use in sterilizing cat gut, silk, etc?

Dr. Forwood: I said in my remarks on the subject when it was before the Society that formaline might be used for this purpose, but that there were so many better ways of doing it that it was not worth while to use formaline. Boiling with bicarbonate of soda is much better.

Transposition of Viscera.

Dr. T. Morris Murray presented a young man in whom there was a complete transposition of the thoracic and abdominal viscera.

DISCUSSION.

Dr. C. H. A. Kleinschmidt, said: It may not be uninteresting to know that transposition of the viscera occurs very frequently in the lower animals. In my physiological experimental work I had two rabbits in which the viscera were transposed. The post mortem showed that there was complete transposition of all the viscera.

THE NATIONAL

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THE EDITOR'S TABLE.

Bound Volume of Transactions. After the usual edition of this journal is printed each month the pages of the "Transactions of the Medical Society" are rearranged and renumbered and a few copies printed therefrom. In this way it will be possible, at the end of the year, to give the Medical Society bound copies of its "Transactions" only.

The Statistics of Diphtheria. The study of statistics is always interesting, although not always profitable. In studying the statistics of diphtheria we have on the one hand the record of many years, while on the other hand there is a record of scarcely more than a year. One would hardly be justified in making a minute analysis of figures based on such unequal records, did not the enthusiastic advocates of antitoxin do so. We simply follow their example.

The Official Health Reports of Boston, New York and Brooklyn, recently published, show that during the past year or two there has been an enormous increase in the number of cases of diphtheria. In Boston, the number of cases recorded in 1895 is over twice as great as any other year, and, on an average for the ten preceding years, about three times as great. In New York and Brooklyn the increase since 1894 has been equally marked.

The question naturally asked here is, why this immense increase? Is it a fact that these cities have been visited by unusual epidemics of this disease? No one claims such to be the case. This great increase is due to the results of bacteriological examinations of cultures from the throats of patients.

Another question naturally asked is, if bacteriological examinations had been made prior to '94 would they not have resulted in showing a large increase in the number of cases? Probably the great majority of physicians will answer this question in the affirmative. These cases which have not been previously reported must be those of a very mild nature; cases which would not be regarded as diphtheria were it not for the bacteriological examination. It follows that the decrease in the mortality since 1894 over the ten preceding years is largely such as would naturally result from classing as diphtheria a large number of cases so mild that they would recover under the most simple treatment.

Corroborative testimony is given to this view by studying the figures which give the number dying per 10,000 inhabitants. In the city of Boston this ratio was higher in 1894 than any other year since '80, viz., 16.67. In 1895 it was 11.73 per 10,000. Since 1880 there have been ten years in which the number dying was less than this. The study of the figures for New York and Brooklyn gives about the same results.

In other words, we find that since antitoxin has been used the number of persons dying of diphtheria, per 10,000, has not been decreased, but has been largely increased over ten of the preceding fifteen years.

Probably the Boston city hospital has presented statistics as favorable to antitoxin as any institution. The figures furnished by the authorities have been widely quoted. But the study of the statistics of this hospital for the past six years leads to the following:

Prior to 1894 the hospital did not have over 419 cases of diphtheria during any one year. In 1894 there were 598 cases recorded; but in 1895 there were 1,566 cases! This is a startling array of figures. It is difficult to study them without believing that this enormous increase of cases in 1895 includes a large number which were said to have diphtheria simply because of the Klebs-Lœffler bacillus in the throat. With this view of the case it follows that the marked decrease of the mortality for 1895 is largely a question of admitting under the head of "diphtheria" all cases which show the presence of the diphtheria bacillus.

Bacteriological examinations have classed under diphtheria a large number of cases which would recover without treatment, and which heretofore have passed unnoticed. The addition of these cases must result in greatly reducing the mortality, without any reference whatever to antitoxin. On the other hand it must be said that the evidence is conclusive that antitoxin is a remedy of value in the treatment of diphtheria. It is equally well proven that it is far from a specific, and that it does not reduce the death rate to anything like the amount which has been claimed for it.

AN AMERICAN TRAVELER.

But few persons, arrived at middle life, have had such varied experiences and adventures both by keel and saddle, or have been more ubiquitous travellers than Dr. Irving C. Rosse, of this city.

Besides travelling in Mexico, Canada and most of the United States, he has crossed the Pacific ocean four and the Atlantic twenty times, one of the Atlantic trips being in a small sailing yacht, and has literally vibrated between Arabian canal-drivers and Eskimo dog sledges; between European capitols and California fruit ranches.

During two Arctic expeditions to spots near the pole never reached before, he travelled many thousand miles. He has also made numerous voyages to distant islands in both oceans; has had the rare experience of visiting the Alaskan Seal Islands four times; of passing through Bering Strait fourteen times, and of circumnavigating the coast from Sable Island and Halifax to the Rio Grande on the Atlantic side, and from California to Point Barrow on the Pacific-Arctic coast.

By way of sport he has hunted game from the tropics to the Arctic, including nearly everything from the Indians, cattle-thieves and Polar bear down to ptarmigan; and as a mountain climber has ascended notable peaks from Vesuvius and the Azores to the icy volcanoes of the Aleutians and the dangerous summits of Herald Island.

Many prominent events have also come under observation during these wanderings, such as a review of Italian troops on the battle-field of Solferina; the grand review of the army of the Potomac; of the Prussian army after Sedan, and later of the French army. He also saw the British troops reviewed after the bombardment of Alexandria, and was in Africa during the Zulu war.

To these may be added a wide medical experience, chief of which that of being present at three outbreaks of cholera, namely, one at Tybee Island, Ga., in 1866, a second in France in 1884, and the third in 1893 in Italy, where the newspapers spoke in the highest terms of his visits to dangerous lazarettos, which the doctor was enabled to do only after obtaining permission from Rome.

ORIGINAL CONTRIBUTION.

ONE MONTHS' SURGICAL WORK.

By I. S. Stone, M. D., Washington, D. C.

One year ago the author published in The National Medical Review an article giving a concise report of the work of one month in abdominal surgery. The following paper and report of cases is to show, as in the previous instance, the character of the surgery, the variety of cases, and the results attained. As is the custom with gynecological surgeons only capital operations are mentioned, but one might report very many lesser operations in which the health and comfort of the patient were conserved quite as much as by these major operations, which not only involve danger to the patient, but skill on the part of the operator, not to say responsibility and anxiety as to the result.

Case 1st. Mrs. G., Columbia Hospital. History of gall stone; colic for several months. Slight icterus. Cholelithotomy, May 4th, 1896. Several small stones removed. Patient recovered promptly, and sat up in a week.

Case 2nd. Mrs. D., Columbia Hospital. Had prolapse of the uterus. Hysterorrhaphy, May 8th, 1894. Cervix and perineum restored at same sitting. Patient recovered nicely.

Case 3rd. Mrs. B., Columbia Hospital. History of pus in pelvis. Pelvic peritonitis. Cœliotomy, May 8th, 1896. Pus sacs removed. Prompt recovery of patient, notwithstanding an attack of exudative tonsillitis during convalescence.

Case 4th. Miss W., Columbia Hospital. Had hard tumor in lower abdomen for three years. Much depressed mentally. Had also pressure symptoms. Supra vaginal hysterectomy done on May 11th. Baer-Goffe method. Prompt recovery from operation.

Case 5th. Mrs. C., Columbia Hospital. Hernia and pain in region of appendix vermiformis. Herniotomy, May 11th. Appendix also removed. Patient recovered from operation and subsequently had an operation for an undiscovered femoral hernia.

Case 6th. Mrs. G., Columbia Hospital. Pyosalpingitis. Pelvic peritonitis. Cœliotomy, May 15th. Careful enucleation. No flushing or drainage. Prompt recovery without fever or pain or septic trouble of any kind.

Case 7th. Mrs. O., Columbia Hospital. Had long suffered from pelvic suppurative disease. Ovaries and tubes were so tightly fused together that the surgeon who operated upon her found it impossible to prevent the formation of a fecal fistula. He did well to save her life. She came to the hospital hoping to have this fistula closed, after five months of semi-invalidism. I became fully convinced that the bowel was adherent to the uterus in such a manner as to prevent the closing of the fistulous opening. A probe introduced from the abdominal side would strike the upper and anterior surface of the uterus. Operation was done May 15th. The uterus was removed, the bowel carefully separated and iodoform gauze packed into the cavity left. The patient at first discharged nearly all fecal matter through the vagina. After one week the abdominal opening closed. In two weeks the vaginal opening had so far closed as to cause nearly all fecal matter to be passed by the bowel. At the end of one month her greatly improved appearance left no doubt of her rapid recovery. The vaginal sinus remaining has only a slight discharge of fecal matter, and the patient seems almost well.

Case 8th. Miss S. Had well marked menstrual epilepsy. As a forlorn hope double salpingo oophorectomy was done at my private hospital May 18th. She made a good recovery from the operation but the attacks continue.

Case 9th. Mrs. ——, private hospital. Had a pelvic tumor which was thought ovarian. It proved to be an immense pus tube which was removed without rupture. She had an attack about three years since of what was called obstruction of the bowels. It was really pelvic peritonitis. Operation was done on May 20th. Result an ideal recovery.

Case 10th. Mrs. H., Columbia Hospital. Had a hard tumor of the uterus, reaching somewhat above the umbilicus. Supra vaginal hysterectomy done on May 22nd. A perfect result in every way.

Case 11th. Miss C., Columbia Hospital. Had all the symptoms of an ovarian tumor, but at the operation it was found to be tubercular peritonitis. She easily recovered from the operation. The ultimate result will be determined later on.

Case 12th. Mrs. —, private hospital. Had movable kidney. Gastric and neurasthenic symptoms. Nephrorrhophy was done on May 22nd. A perfect result thus far.

Case 13th. Mrs. T., age 67. Private hospital. Had a large painful abdominal tumor—diagnosed as ovarian. The lady was frail and so weak that anæsthesia was dreaded. The tumor was everywhere adherent. To have removed it would have meant sure death to the patient. Therefore the operation was abandoned and the sac sewed to the parietes, a drain inserted and the patient put to bed. She remains in about the same condition as before, save that she is minus the great distension and pressure. Operation May 24th. Patient is now at home and her physician reports decided improvement.

Case 14th. Mrs. U. Had uterine myomata. Tumor filled the pelvis. Supra vaginal hysterectomy at Columbia Hospital on May 25th. A perfect result in every particular.

Case 15th. Mrs. H., private hospital. Had history of gastric and hepatic pain for four years. Cholelithotomy, May 28th. Patient has improved and is better than for many years. Four gall stones removed. Ideal result.

Case 16th. Miss N., Columbia Hospital. Had tumor reaching above the umbilicus. Supra vaginal hysterectomy was done on May 29th. A fibro myoma weighing seven pounds was removed by the Baer method. The patient has had much shock, but is doing nicely and soon will be entirely well.

Not only have these patients recovered from operation, but they have, with one exception, had easy smooth recoveries without shock or wound infection. This list is included in a report of my third series of one hundred operations, which will be published shortly, and is a part of a list of sixty-five completed abdominal operations without mortality.

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ACUTE ANTERIOR POLIOMYELITIS.

BY TALLIAFERRO CLARK, A. B., M. D.

When we consider that a sudden elevation of body heat attended with vomiting, in very young children, subsiding with the same suddenness as the outset, may be occasioned by apparently slight irregularities of diet, or by exposure, it is not to be wondered at that we often fail to recognize the incipiency of acute anterior-poliomyelitis. It is the writer's firm belief the earlier the diagnosis, together with the institution of appropriate treatment, the greater will be the curtailment of the area finally paralyzed. Therefore, it is partially the purpose of this paper to impress upon the general practitioner the necessity of ever being on the watch for this common and insidious affection, when called upon to prescribe for a child, under three years of age, presenting symptoms characteristic of no particular malady.

The onset is usually sudden. The little patient has fever, vomiting and often convulsions. The fever, as a rule, is not high but may reach 105° F. The child is restless, fretful and occasionally presents some hyperesthesia along with spinal pain. The latter are rather complications than symptoms, being dependent upon congestion of some portion of the sensory tract and involvement of the spinal meninges repectively.

The onset in some cases is exceedingly obscure. The writer readily recalls the case of a child, four years old, with slight talipes varus. The mother could give no history of an acute attack, incidentally calling attention to the child during a professional visit to herself. It is thus seen that the initiatory symptoms are not characteristic, and are present at the outset of many of the affections of childhood.

Within an hour to several days, from the onset, paralysis, more or less extensively distributed, is observed. This paralysis presents several peculiarities. First, it develops with great *rapidity*, depending, of course, upon the acuteness of the attack. Second, it is *flaccid* in character and, as a rule, without sensory symptoms, consequently there is no disturbance of bladder or bowel. This latter fact is also due to the part played by unstriated muscular tissue in these acts, and which is never involved in uncomplicated anterior-poliomyelitis. Third, this paralysis may be divided into more or less *definite stages:* (1) A period of *extension,* in which there is an increase in the area paralyzed. This usually lasts several days. The writer recalls a case in which the increase of paralysis was so extensive that death resulted from paralysis of the muscles of respiration. (2) The *stationary period.* In this the paralysis, after reaching the acme, remains without change for a few days or several weeks. (3) The period of *retrogression,* lasting for months and finally merging into the chronic stage. In this period there is gradual regain of control over those muscles that are paralyzed only temporarily. Lastly, there is a peculiarly constant *selection* of certain groups of muscles finally paralyzed. The most frequently affected groups are the extensors and peronei of the leg and, therefore, the most usual deformity is a talipes equino-varus. In the arm it is the deltoid: in the fore-arm, the extensors with resulting wrist drop.

The affected muscles are not only paralyzed, but *atrophied,* and are markedly altered in their action in response to an electrical stimulus. The atrophy is immediate, and it is stated by some observers to be more rapid in development than that following section of a nerve.

Contraction of muscle fibre under electrical stimulation, is produced in two ways: (1) excitation through the motorial end plate or axis-cylinder supplying the fibre: (2) by direct excitation of the muscular structure. The galvanic current only can act in the second manner. Using this current in health, a contraction is more readily produced by closing the current with the negative pole than when it is closed by the positive. Now in anterior-poliomyelitis there is loss of excitability to the faradic current which may occur as early as the first week. The earlier and more complete this loss, the more hopeless the prognosis with respect to regaining power in the affected muscles. The galvanic current produces contractions more readily, using the positive pole to close the current, than when the negative pole is used. The contractions are wave-like and produced with a milder current than in health. This in substance is the reaction of degeneration.

Owing to the infrequency of fatal cases of anterior-poliomyelitis, its pathology, in the acute stage, was for a long time but little understood. For a clearer understanding, it must be remembered that the microscope reveals the large polypolar cells of the anterior cornua of the cord, arranged not *en masse,* but into distinct groups. For example, a median group, an internal—and external, anterior group. Furthermore, each group has a distinct arterial twig coming to it, from the periphery of the cord, derived from the lateral and anterior spinal arteries respectively. It must be noted, furthermore, that the greatest aggregation of these cells is to be found in the most vascular regions of the spinal cord, the dorsal and lumbar enlargements, while, on the contrary, they are most sparsely scattered through the dorsal region, supplying the truncal muscles. This latter arrangement explains why it is comparatively rare to see these muscles paralyzed as a result of the disease in question. It is patent that a very large extent of cord could be affected in this region, yet involve relatively few of these large cells upon which muscles depend for their enervation. When these cells are destroyed, the muscular fibre to which their axis-cylinders are distributed become paralyzed and undergo rapid wasting. In the few cases going to autopsy, in the acute stage, it has been found that the capillaries, just described, become distended and extravasation takes place. The cells become swollen and granular, then follow foci of softening and finally destruction of cell and replacement by fibrous tissue. When this takes place, the muscle fibres supplied by such cells are utterly beyond redemption. It is furthermore found that neighboring groups of cells are compressed by the local extravasation, upon the resorption of which they regain their normal tone and the phenomena of the recessive stages are explained.

In long standing cases, the cord on the affected side is smaller and denser. The medullary sheathes and axis-cylinder of the nerves coming from the diseased anterior cornua, undergo degeneration and later become denser. In the muscles individual fibres become thin and undergo granular degeneration. Within the sheath of the affected fibre are found nuclei, from which, should the destructive process stop, regeneration may take place. Individually the diseased muscles appear smaller than normal, due to an increase of connective tissue. In some cases, owing to an increase of interstitial fat with hypertrophy of remaining healthy fibres, these muscles present to the eye no loss of volume.

It is worthy of note that the spleen is found enlarged. Of great interest, from an orthopædic standpoint, is the retarded growth of bone—a potent factor in the production of deformity. Ligaments surrounding joints become relaxed, thin from stretching and thus assist in the production of deformities.

The foregoing resume enables us to reason from effect to cause and make clear the lines along which the ætiology of anterior-poliomyelitis is to be studied.

The writer sides with the advocates of the specific germ theory. Many facts may be recited that go far towards substantiating this position. The affection presents all the prominent characteristics of those diseases known to be dependent on zymotic infection. First, we have a sudden onset, fever and a definite course. Secondly, enlargement of the spleen is a frequent concomitant. When we take into consideration that the spleen is the laboratory in which the white blood corpuscles are manufactured, as proven by their excess, relatively, in the splenic vein, then in the splenic artery and, also, by the constant enlargement of this organ in leukæmia: and, furthermore, that the white corpuscles are antagonistic to germ life within the economy, it seems as if this enlargement of the spleen is an evidence of increased activity in the manufacture of agents to combat and eliminate the germs, not only of this affection, but of all the zymotic diseases in which it is so constantly found. Thirdly, the constancy of the morbid findings is another evidence. It speaks of some agent possessing a peculiar selective affinity for the large multipolar cells of the anterior cornua of the cord. In the Medical Record of March 3, 1894, we find the following: "Dr. Redlich, of Vienna, found in the spinal cord of a child five months old, dying of anterior-poliomyelitis, that the blood vessels were the starting point of the disease, and not the supporting framework and ganglionic cells, as was formerly supposed." His conclusions, based upon his findings in this case, were, that the disease is caused by an infective process. According to this, referring to the arrangement of cells and blood supply in the anterior cornua, as just given, if the blood vessels be the starting point, it is very easy to see how one group of cells may be destroyed and others spared, one group of muscle fibres degenerate and others are healthy. Nor is it hard to believe in an agent possessing this selective affinity, when we consider the action of apomorphine upon the terminals of the pneumogastric in the lining membrane of the stomach, so that, even when injected into some remote part of the body, it excites prompt vomiting; it is no more wonderful than the selective power of gelsemium for the terminals of the facial in the orbicularis palpebrarum, a large physiological dose producing drooping of the eyelids, owing to their paralysis. In the domain of germ life, we find the peculiar affinity of the bacillus of typhoid fever for Peyer's patches in the small intestine. Examples could be multiplied to prove the statement, that certain substances, gaining access to the system, manifest their chief activity upon certain individual organs and structures. Since such is the case, the well-known facts just stated about anterior-poliomyelitis very strongly indicate that its production is due to the entrance into the economy of some substance or germ having a similiar selective affinity for the capillaries supplying the groups of multipolar cells in the anterior cornua of the gray matter of the spinal cord. Fourthly, and lastly, like other zymotic affections, anterior-poliomyelitis occurs in epidemics. The Medical Record (vol. 45 No. II., p. 341) contains the report of the Practitioner's Society, of New York, of November 2, 1894. At this meeting, Dr. C. L. Dana discussed an outbreak of anterior-poliomyelitis, confined to an area of ten by thirty miles in Vermont, that occurred in June, July and August, 1893. In all there were one hundred and fifty cases. He further stated that Dr. Caverly had sent to him a hen taken from a flock at the end of a village where fifteen or twenty cases of poliomyelitis anterior had occurred. This hen had developed sudden paraplegia. Microscopic examination of the anterior cornua had revealed congestion and deposit of hæmatin. Although the results of biological study of this case by Dr. Dunham, of the Carnegie Laboratory, gave negative results, still its history with microscopic findings was strongly confirmatory, to his mind, of the infectiousness of anterior-poliomyelitis. It is useless to cite the history of other epidemics. Deductions are obvious. Of the predisposing causes may be mentioned age. It is a disease of infancy. This is due not to anatomical defect, but to a lessened capacity for resistance in the tissues of the young. "Exposure to draughts," "sudden chilling of body," "sitting on cold steps," are simply exciting causes. The atheromatous subject, under certain conditions, may live for years. On the other hand, let him eat too heartily, become very angry, or take unusual exercise, the blood pressure rises and the Damoclean thread, the straining barrier between him and death, gives way. "It is finished." Even so in this disease. The little capillaries supplying a group, or groups of cells, may have been the focus of disease for days, then comes this sudden determination of blood to the internal organs and the onset is traceable. Malaria, *per se*, cannot produce anterior-poliomyelitis, but since it is common for this affection to develop in the victim of the plasmodium malariæ, the congestion of internal organs coincident with a chill may act in the same way as the other exciting causes just enumerated.

We now come to the practical. Empiricism must be laid aside utterly, for, at best, it is but a weak staff upon which to lean and combat known pathological conditions by remedies whose physiological action is unknown. To do this, the treatment must be divided into two stages. First, to combat the congestive stage; second, the period of cicatrization. The treatment of the remote effects of this disease most properly belongs to the orthopædic surgeon, and will not be discussed in this paper. In the congestive stages we are to combat hyperæmia, limit the outpouring of exudate, and thus protect, as far as possible, adjacent cells from compression and destruction. Ergot fulfills these conditions. It causes marked contraction of arterioles and reduces the number of the heart's pulsations without materially increasing its power. In addition, the room must be kept at about 70° F., and free from draughts, avoiding sudden chilling of the surface, driving the blood to the internal organs and aiding the process we are striving to combat with ergot. Furthermore, we must be careful, not only in this disease, but in all the affections of childhood, not to excite the delicate stomach by the improper exhibition of our remedies. Again, since many of these little patients are malarious also, a chill is to be guarded against and quinine is exhibited in liberal doses. At this point the writer wishes to put in a plea for the hydrochlorate of quinine. It is just as cheap as the sulphate, just as efficacious, less irritating, and more soluble. Therefore I usually prescribe it, for these cases, in combination with ergotin in suppository, thus avoiding nausea and struggling, besides the advantage of introduction while the patient is asleep.

The spinal ice bag is superfluous in the majority of cases, and, by reason of injudicious management, likely to do more harm than good.

Electricity to the diseased area is favored by some and condemned by others. Theoretically, in the stage of hyperæmia, it can be used only for the local polar effect. In the decomposition of water by the electric current, oxygen collects at the positive pole and hydrogen at the negative. Substituting animal tissue, it has been found that chlorine, nitric, phosphoric and other mineral acids accumulate at the positive pole. On the other hand, the caustic alkalies are produced at the negative pole. To the special affinity of hydrogen for this pole is due its liquifying effect. Whether the positive acts as a vaso-constrictor, and negative as a vaso-dilator, or whether both are escharotic in their local action, is, of course, dependent upon the strength of the current employed. Now, in the stage of hyperæmia, the anode is placed over the diseased focus, or foci, and the cathode over the healthy enlargement, or some neutral point, thus getting the constringing effect of the positive pole as explained above. Personally the writer believes that the formidable apparatus required, as well as the manœuvres incident to the applicatian of electricity, taken in conjunction with the well-known sensitiveness of infants to pain, strongly militate against the successful employment of electricity in this stage.

The beginning of the clinical regressive stage is the incipiency of the pathological stage of contraction. Consequently, after the subsidence of acute symptoms, and coincident with the initiation of this stage, we must change our treatment to meet a new condition, and save healthy cells that are in the octopus-like grasp of new-forming fibrous tissue. Fortunately the remedies employed for the removal of this low grade tissue are also stimulating to nuclei (nervous and muscular) escaping the processes of degeneration that have been so active.

It is a well-known law that destruction of tissues of certain grade is always followed by construction of a lower grade tissue in its place. Furthermore, the incorporation of metabolic substances by living tissues causes their protoplasm to undergo chemical change. Carrying the process further, by means of food, air and local stimulation, we can so increase metabolism in a tissue, by a process of hypernutrition, as to cause a breaking-down of its own elements. The nearer this tissue resembles embryonic the easier is this breaking down of its elements accomplished. Such is our aim at this stage—to break down this new-forming fibrous tissue at the seat of the disease, and at the same time stimulate the surviving normal nuclei to healthy development. To accomplish this we employ the great alteratives, iodide of potassium, oxygen, nourishment and exercise. Iodide of potassium is best given in saturated solution, beginning with the minimum dose in milk, and increasing one drop each day, until the limit is reached. The writer has administered in this manner eighty grains three times a day to a girl aged thirteen years.

Oxygen is secured by proper ventilation, and by keeping the patient in the fresh air as much as possible in suitable weather.

Nourishment must be plain, nutritious and easily digested. Nursing infants can be influenced for the better by mothers paying strictest attention to the rules of hygiene and diet. The ferruginous tonics, strychnia and phosphorus are not to be employed as a matter of routine, but only when indicated.

Exercise of the affected muscles is secured in two ways—massage and electricity. Unfortunately the best effects from massage depend upon an experienced operator. In country districts such services are not to be obtained, while in the cities they are beyond the means of many. Still, much good may be accomplished by an intelligent person, first stroking the affected muscles toward the body always; then kneading the tissues by pinching them up and rolling between ball of the thumb and forefinger; next rubbing deeply with the inner side of hand or the finger-tips held approximated; lastly by stroking. After massage, the affected leg, for example, should be snugly bandaged, from the toes up, using an elastic stockinet bandage. Not only does this give support to the relaxed tissues, but, acting upon the principle that the narrowing of the channel increases the rapidity of a given current passing through, prevents stagnation and favors absorption. Massage is best employed in the earliest weeks of this disease, and also to take the place of electricity whenever it is found the latter is not well borne or produces too much excitement.

The galvanic current is used in this stage by placing the cathode over the diseased foci, to hasten absorption of the exudate. Its success is still a matter of doubt.

As an application to the paralyzed muscles before return of response to faradism, the interrupted galvanic should be employed. Ranvier has shown that the capillaries are arranged in quadrangles over individual muscle fibres. Consequently the contraction of these fibres, under electrical stimulation, compresses these vessels, hastens the blood current, and favors absorption and regeneration. This, in the writer's estimation, is a strong claim for superiority in favor of electricity over massage.

Upon the return of sensibility to faradism, some electro-therapeutists employ it altogether. The advocates of each current are numerous and somewhat bitter. Faradism has the advantage of producing more rapid contractions. To offset this, the advocates of galvanism claim much for the interpolar chemical action of galvanism. Since this is as yet an unknown quantity, and since it is not positively known whether this chemical action is pro or con, the writer favors the employment of faradism just as soon as it is found that the muscular contractions produced thereby are better and more rapid than when galvanism is employed.

DISCUSSION.

Dr. S. S. Adams: I expected to discuss only the clinical side of this subject, but before doing so I cannot pass without noticing some of the theories advanced. The disease is not so common as Dr. Clark claims, but is comparatively infrequent compared to those diseases with which it is contrasted. The germ theory does not bear out the clinical history of the disease as we see it. The clinical history is certainly very short in its course, the acute symptoms being of very short duration. The convulsion, so far as that is concerned, is probably due to the hyperpyrexia, for as soon as the fever subsides there are usually no more convulsions noted in the case. If we knew exactly the clinical peculiarities of the disease it would, of course, have an important bearing on our treatment, but unfortunately the initial symptoms, such as they are, are so indefinite, that it is impossible to tell what disease is manifesting itself, and it is only after the paralysis is actually developed that we have the slightest inkling of the nature of the disease. My own observation does not bear out the statement that there is an enlargement of the spleen, except where there are malarial influences complicating the disease. In these cases whether the malarial parasite is the cause of the disease or not is a matter which is purely theoretical. However that may be the history of these cases is the same as that already given: congestion of the cord produced by sudden lowering of the temperature, as by catching cold or by sitting on cold surface when over heated.

So far as the theory of its being an infectious disease is concerned the age of the infant would militate against that, for infancy enjoys a certain immunity, not complete of course, against the infectious diseases.

As far as the treatment of the disease in the acute stage, or stage of congestion, is concerned, I can only endorse what has been said. Ergot, in its effect on the circulation, is the proper remedy and should be given. For the malarial contamination quinine should also be given. I endorse emphatically what Dr. Clark says against the introduction of quinine or ergot into the stomach of infants. You can get just as good results by giving them in suppositories. You cannot disguise the taste of quinine nor overcome its irritating effects on the stomach by any solution you can make, or by dissolving it in anything that will suspend it. If the cases are taken in time before the paralysis develops, and are promptly recognized a great deal of good can be done. In a discussion of this subject in its chronic form which took place sometime ago I was probably somewhat misleading in my statement that these cases did not get well. I meant those that go to the hospital do not recover for the disease is generally so far advanced that without an operation they could not get any better. The deformity usually exists when they enter the hospital. In the later stages the treatment varies. In the Children's Hospital during the past fifteen years under my predecessor, as well as by my colleague and myself a certain line of treatment was followed with some degree of faithfulness to see, if possible, if there was any benefit in it. As to the treatment by injections of strychnia, we both had cases brought in after the acute stage was passed, one of whom received injections of strychnia for six months but we did not see any good results from it. As far as electricity is concerned, we have tried the interrupted and the galvanic currents in the chronic or hospital cases, but we have also seen but little benefit from this method. As to the administration of iodide of potassium, I have seen it given but I have not given it myself, for I have not been sufficiently convinced of its marked value to warrant me in giving it, and especially in such large doses. There may be a certain line of cases in which iodide of potassium may be of some benefit, but that is a very limited class. Fresh air, good food and passive motion performed in a scientific manner, by a skilled masseur or masseuse, is the line of treatment which I have found to yield the best results. By this method we can hope to exercise the muscles. We cannot secure this treatment in many cases in private practice for it is very expensive. Besides, many people cannot afford the time that this treatment requires.

To conclude the subject of treatment I should say that fresh air, the administration of nutrients, in a thoroughly digestible and concentrated form, passive motion and the administration of some bitter tonic if necessary will accomplish as much as anything else. In the end the hospital cases usually have those deformities which bring them into the hands of the orthopædic surgeon, while some are not benefited at all but find their way to a home for incurables.

Dr. F. S. Nash said: Dr. Adams has brought out a very interesting point in regard to this disease—its comparative rarity. When I first began to practice medicine there were two diseases that I expected to see a great deal of—rickets and poliomyelitis—but since I have been in Washington I have seen only three or four cases. It would be very interesting if we could know why this disease is so scarce in Washington. In regard to the character of the fever and its zymotic character, it is not a disease confined to childhood for I have seen several cases occurring in strong young Germans.

Dr. Rupert Norton said: There are very few cases if any on record where the malarial organism has been found in anterior poliomyelitis, and I doubt whether it really occurs except in a few cases, and then it has no connection with the disease except coincidence. The greatest number of cases of anterior poliomyelitis are reported by German authorities and there is very little malaria in Germany, so that I believe that malaria plays a very unimportant part in the causation of this disease, and that quinine may do harm. In regard to the use of ergot, I think there is a great deal of doubt about its value, and the only way to satisfy ourselves of the efficacy of any drug is to take a large number of cases in which it has been given and a similar number in which it has not been given and compare the results. There are no such statistics regarding the use of ergot in anterior poliomyelitis, and authorities do not agree as to its value. As to iodide of potassium, I agee with Dr. Adams in thinking that it is of no use in this affection, for iodides do not seem to have much effect in growths except in those of syphilitic origin. If it is to be administered at all in anterior poliomyelitis it should be in small doses. This is not a disease of syphilitic origin, so the iodides will not be of much value.

Dr. J. T. Sothoron: The paper of Dr. Clark is certainly a very interesting one and goes deeply into the ætiology and pathology of the disease, as well as giving the treatment which is something unusual in papers of this class. I am not going to discuss the paper to any extent, but I simply want to remark that in the early stages of the disease it is apt to be confounded with rheumatism. I remember the first case I had which I was certain was a case of rheumatism. The child was first taken with a chill and fever and pains, no convulsions and no cerebral symptoms and I was not aware that it had anything else until eight or ten days later when paralysis came on. If we could arrive at some means of diagnosing these cases at their onset it would be something to help us towards a more successful treatment. For the after treatment I think quinine and strychnia are preferable, and later on electricity is the best remedy to use to prevent atrophy and deformities of the limbs.

Dr. Robert Reyburn said: It seems to me that the very excellent paper of Dr. Clark is incomplete in that it does not give the history of the cases we meet with. I agree with the treatment recommended for the earlier stages, but what can be done later,—what about those cases which cannot be subjected to medical treatment? The important point I want to raise is that orthopædic treatment should be tried as early as possible. The deformity progresses rapidly, and after it is once produced it is kept up by the weak muscles being drawn more and more to one side and becoming more and more atrophied. I desire to earnestly impress upon everybody that as soon as they find that one of these cases is not yielding to medical treatment (they go to a certain extent and then remain stationary) they should promptly treat the deformity. But the apparatus that has been used for this purpose has not been successful, for, having a paralysis of one side of a limb an apparatus would be put on that appeared to draw the foot into normal position. Now what do we do? We do not help the paralyzed muscles, but we weaken the strong ones. A paper by Dr. Millien (Medical Record, Oct. 26, 1895) recommends a method of curing marked deformity by grafting the tendon of the paralyzed muscles upon some sound muscle, and he succeeded in getting excellent results. Section of the healthy muscle is also recommended, as in club foot. My remarks are intended to apply only to those cases in which medical treatment has been tried, but which remain stationary or are getting worse.

Dr. J. Ford Thompson said: I see the effects of this disease very frequently, and I am operating on these cases all the time, for a great number of children are admitted to the Children's Hospital suffering from this deformity in its various stages. There is usually a want of development of the limb and paralysis of certain groups of muscles. Taking all in all there are quite a number of such cases, and they are not at all uncommon. When I see so many of these cases of deformity I think the treatment has not been very effectual in the early stages. Dr. Clark criticises those who used medicines experimentally, and yet I think every medicine he recommends was used in an experimental way, such as quinine, iodide of potassium, ergot, etc. And yet he gives us no results of his personal experiences in curing these cases, and it would seem that many of these drugs are used in a theoretical way. It is not proved that ergot will cure congestion of the spinal cord, or that quinine or iodide of potassium will do it, and I have doubts about their doing it in special cases. Now, in treating these deformities I find it very necessary from the first to perform tenotomy, and where the muscles are contracted I find that it gives the greatest benefit. I have frequently seen cases that have been paralyzed for some time, after obstinately resisting applications of all forms of electricity, and the best that can be done for these cases is to use some supporting apparatus combined with judicious tenotomy. Only last week I operated on a case of a child whom I saw years ago just following an acute attack of this disease. She was sent west to a surgical institution in Indianapolis where they performed a number of tenotomies and tried all kinds of apparatus, and instead of doing good they did harm. These form an interesting class of cases. Treatment such as that recommended by Dr. Reyburn has been tried but the results have not been good. The later operation of grafting the paralyzed muscle on some muscle that is active does do good, but the number of cases reported has been few—not enough to base statements upon. The flexor muscles of the foot have been grafted upon some neighboring active muscles, but the results have not been entirely satisfactory, but at the same time those familiar with the amount of weakness and atrophy in these cases have not much reason to be discouraged, and as it is a simple operation I think further experience will give still more encouraging results.

Dr. Busey: Gentlemen are discussing this paper from two different standpoints: the surgeons discuss it in its chronic form and the others in its acute form. The acute cases do get well, but the chronic cases are the ones that go to the hospital. I do not believe there would be any chronic cases if the disease were properly treated in its acute stage.

Dr. Clark, in closing the discussion said: My aim was to call attention to the necessity of hastening the absorption of the exudate, for if we wait until that exudate has been organized there is little hope of its being reabsorbed.

He spoke in advocacy of accepting the results of recognized authorities as to the efficacy of drugs; and replied to the objections offered to his conclusions.

MEETING OF APRIL 15, 1896.

Dr. S. C. Busey, President, in the Chair.

CANCER OF THE STOMACH.

Dr. J. H. McCormick presented a specimen with the following history:

Mr. B., aged 53, died suddenly, Nov. 21, 1895, after an illness of twelve hours. The patient had complained of intermitting lancinating pains beginning at pyloric end of stomach and running upward and obliquely outward to left arm and down the arm to the finger tips. This pain was more noticeable when assuming a stooping posture. He had consulted six or eight physicians each of whom gave a different diagnosis.

When consulted, I was undecided between cancer of the pylorus and ulcer, as there had been no vomiting nor spitting of blood, to indicate the latter and upon palpation no tumefaction could be discerned to suggest the former; however the peculiar pain seemed to indicate a stenosis, and in the absence of other causes I attributed this stenotic condition to concerous disease. If ulcers were present they were dependent upon cancer, and were secondary.

No one concurred in this diagnosis. Autopsy twenty-four hours after death.

When the specimen was presented to Dr. Lamb he found, as I did, seven ulcers, but he did not believe the thickening and stenosis which were present, and which I had thought would be found, were due to cancer. However, microscopical examination showed the lesion to be a medullary cancer.

The heart showed dilatation and slight hypertrophy and calcareous deposits in the walls of the larger vessels, the aorta especially being quite hard from atheroma. This is interesting, in that it accounts for the acute pain on stooping and the pain running obliquely across the chest and into the left arm, also because the patient had been examined and passed for life insurance about two weeks before his death, the examiner believing the pain to be due to acute attacks of indigestion.

Dr. G. Lloyd Magruder exhibited two pathological specimens with histories:

1. Cancer of the stomach, pyloric extremity.
2. Cancer of the stomach, involving almost the entire organ.

1. Mrs. T., aged 49, generally enjoyed good health previous to her marriage in her eighteenth year. For several years after this, she was in very poor health, following a confinement. In the fall of 1878, she suffered much from gastro-enteric symptoms, nausea, vomiting and abdominal pain; at times she would pass large casts of the bowels; there was generally obstinate constipation. There was no tenderness and no enlargement, nor induration in the region of the stomach.

These conditions persisted with more or less severity for the succeeding two years, when there was a marked improvement which lasted for a year; then the old symptoms returned with full intensity, which necessitated most careful management. Her diet was almost entirely restricted to peptonized milk. During the ten years preceding her death her health had steadily improved, so that she was able to attend readily to her household duties. She had not had occasion to have professional advice since 1887. In the early part of September, 1895, she noticed an enlargement in the epigastric region. This tumor was cylindrical in form and occupied an almost horizontal position near the location of the transverse colon, extending from the right towards the left side; it was easily moved and could be forced over a wide area even beyond and below the umbilicus. She was obstinately constipated; there was neither nausea, pain nor vomiting. She was much depressed by the appearance of this rapid growth. Later aggravated symptoms of indigestion became manifest, so that the smallest quantity of even liquid food produced severe indigestion. She was about the house until eight days before her death, which occurred Oct. 21, 1895, thirty-five days after she first sought professional advise. In the last week of her life there was constant nausea and vomiting, but little pain. At no time was there hematemesis. Necropsy by Dr. D. S. Lamb, Oct. 22.

"Body emaciated. Had been embalmed. Examination limited to abdomen. Viscera blanched by embalming fluid. Pylorus showed thickening and several deep ulcers. Other organs appeared normal.

Description of stomach; Pyloric half shows thickening of mucous membrane; pyloric region also shows hypertrophy of muscular coat and two large ulcers; one is half an inch from pylorus and penetrates to muscular coat; the other, one inch beyond, is also deep. About four inches from pylorus the stomach makes a rather abrupt bend on itself, where the main thickening and contraction ceases.

Microscopical examination by Dr. Reed showed the new growth to be a carcinoma."

2. The second case is especially interesting on account of the long freedom from marked symptoms, the great extent of the disease and the character of the growth.

Mrs. T., aged 70, had been in feeble health for the past two years. Whilst not confined to the bed, nor the house, she was not able to take much exercise without promptly experiencing fatigue: she was thin and complained of occasional symptoms of indigestion, experiencing some distress at times after eating. These symptoms were not sufficiently severe to require professional care, except upon rare occasions, and then only for a few days.

She had no occasion to seek medical advice for over a year until about three weeks before her death. At this time she was very feeble, there was almost complete loss of appetite, and great distress upon taking the least food, either liquid or solid, even in the smallest quantity; there was nausea and vomiting of the food as soon as it was taken; but no hematemesis at any time. A well defined tumor occupied the epigastric region. She died from exhaustion Oct. 26, 1895.

On post mortem examination there was marked emaciation; the stomach was found to be infiltrated throughout its entire area with the cancerous growth, except a space about two inches square in the anterior surface near the pyloric end, the mucous membrane and muscular coat were thickened and indurated, the other organs were apparently normal.

Dr. Kinyoun pronounced the growth to be a cylindrical-cell carcinoma.

DISCUSSION.

Dr. Rupert Norton said: One of the cases reported by Dr. Magruder is particularly interesting on account of the mobility of the tumor. About the only tumor in this position that is movable is a tumor of the pylorus. It may be found down as low as the umbilicus, and to the right or left of the median line, and it may be pushed about in all directions. The diagnosis in such cases can only be made from the general symptoms of gastric disturbance.

The other case presented by Dr. Magruder of diffuse infiltration of the stomach wall is also very interesting. The diagnosis in this case is more difficult than in the other, and there are but few such cases on record. I have seen one other case, and remember to have heard Dr. Welch mention the condition as rare.

PURPURA HEMORRHAGICA, COMPLICATING TONSILLAR ABSCESS: EXCESSIVE HEMORRHAGE FROM THE TONSIL.

By William Compton, M. D.

Before I proceed to give in detail the history of the case of purpura hemorrhagica with which I have lately had to deal, I may be pardoned the transgression of indulging in part with the disease generally. Until 1889, and even now among the profession, the cause of Werlhof's disease was and is supposed to be one of four conditions.

1. Changes in the walls of the blood vessels.
2. Changes in the blood.
3. Derangement of the nervous system.
4. Infection.

In 1889 Ludwig Letzerich observed two cases—one in a girl of twenty, the other in himself. He made careful blood examinations and as a result of his experiments discovered and tabulated the micro-organism as follows:

"Bacillus purpuræ hemorrhagicæ Letzerich."

Habitat—Spores in the blood serum of the patient. In the ecchymoses, etc., and bacilli as well as spore-heaps.

Form and arrangement — Apparent fibrils, long bacilli limited by sharp corners and edges.

Motility—Spores in blood occasionally show a weak rotating motion, otherwise are immobile.

Growth—Always occurs outside the blood and on gelatine.

Plate and stick cultures in gelatine—Forming flakes of clear whitish yellow color. Forming flakes of clear whitish yellow color not running together. No formation of mykoderma.

Temperature relation—Capable of growing in all temperatures above 15° to 20° C.

Rapidity of growth—In ordinary temperature in three days. In temperature up to 37° C already completely developed in two days and beginning to be limited. In four or five days spore formation.

Relation to gelatine—Very hard, scarcely liquifying in high temperature 30–37° C.

Relation to color—Stains readily with methyl violet in simple color but fades when exposed to sunlight, very quickly: hence the preparation must be kept in the dark.

Pathogenesis—Injection in the peritoneum of rabbits with pronounced results, (twelve experiments).

Entrance—It is decidedly obscure how they get into the human organism.

These experiments have not been verified by others, but Tizzoni and Giovannini have found an organism."

I am indebted for this translation from Letzerich's monograph on purpura hemorrhagica, to Dr. Wallace Johnson. My own experience with such cases is limited to one, but the opportunity for a bacteriological investigation, as has just been cited—though contemplated—was denied. Not any of the first three supposed causes, namely, changes in the blood vessels, in the blood or nervous system, sufficiently explain the phenomena exhibited by this disease, nor from my small experience and observation do I consider them other than evidences of the disease. By the theory of infection we can account not only for these but all other changes observed. Letzerich supposed a long prodromal period in which there are occasional hemorrhages, he also states the attack is accompanied by swelling of the liver and spleen and that the fever is never high.

The diagnosis is comparatively easy,

the one disease with which it may be confounded is scorbutus, and the history is generally sufficient to distinguish one from the other. Osler, in his Practice of Medicine, article on Scorbutus, states: "In isolated cases, however, the disease is distinguished with difficulty from certain forms of purpura."

The prognosis is doubtless very grave, and must depend upon complications. Patients can get well, but I have not found many such cases reported.

The treatment: if we are right in the theory of infection, we may hope some day to possess an antitoxine. Hemorrhage should be checked when possible, supporting measures—good nourishing food—attention to hygiene and stimulation in moderation, and only under careful observation, are indicated. As to drugs, those which commend themselves most highly are ergot, iron, digitalis, and quinia when malaria is a complication, and salicylate of soda, if rheumatism or gout be present. The oil of turpentine has been suggested. Such complications as may arise should be met with appropriate measures.

In presenting to you the history of this case I am actuated not only by the belief that it will prove of interest, but also by a desire to remove a false impression and amazingly wide spread criticism concerning one of the members of this society. I was sent for in great haste to see Prof. E. about 8 p. m., Friday, March 13, 1896. I found him in a great state of exhaustion and nervous excitement, resultant upon hemorrhage from a tonsillar abscess of the right side. About three hours previous to my being called the abscess had been opened by Dr. C. G. Stone. By actual measurement, allowing for some alum solution which had been used, the amount of blood lost was one and one-half pints. The pulse was very rapid and thready. There was distinct pallor with a bronze tint of skin, the expression was painful and evidencing much apprehension. The space between the teeth on opening his mouth as wide as conditions would permit, was totally inadequate to think of attempting to ligate any vessel or vessels, so recourse was had to pressure. A swab of cotton was held for a time tightly compressed against the bleeding surface; finally I used styptic applications of alum and persulphate of iron. After persistent effort the hemorrhage was finally stopped, and there was formed a well organized clot. I also gave two hypodermic injections of ergot, in the form of fluid extract. The history as stated was that the tonsillar abscess began two weeks prior to the date of March 13th, on which day Dr. Stone for the first time was called. Not having his instruments he used the blade of his knife to open the abscess. Hemorrhage in profusion did not take place for three hours after this puncture, too long a time for a severed artery to fail to bleed. Hemorrhage from the mouth began 24 hours previous to the incision. It has been currently reported and judging from the numbers who have approached me—medical men and laity—so widely, that the first hemorrhage was the result of the incision made by Dr. Stone, that he had inadvertently severed an artery. Not only is this not a fact, but an injustice, which I think every fair minded person will consider his or her duty to stamp as it deserves. The hemorrhage was due to slough, and all that followed and finally terminated in the death of Prof. E., was in my opinion attributable to the neglect of existing conditions for two weeks.

I most carefully questioned the patient as to history of past bleeding or tendency to bleeding. Once I asked him with emphasis to tax his mind on this point and on a pad he wrote, "I have not bled a teaspoonful in thirteen years, and in that time have twice had this condition in my throat"—meaning quinsy. There was no history of malaria, rheumatism or gout. His habits were exemplary, and he had never used stimulants or tobacco. There was no history of scorbutus. After the cessation of hemorrhage I began to nourish him by giving liquid food at two hours intervals. Iced milk was freely given during that night, and this varied with other food stuffs in liquid form, was continued until his death. The next day, March 14th, I began the tincture of chloride of iron, ten drops every three hours, with brandy one drachm every two hours. The temperature ranged from 98.6 to 100.2, the pulse from 96 to 112. At no time did examination of urine show casts. Albumen was present, due to presence of blood. Urine, normal in color, was voided in sufficient quantity. There was oozing of bloody saliva constantly from mouth. Digital examination showed the clot to occupy a portion of the auro-pharynx and lower naso-pharynx, and extending about two-thirds across the palatine arch. It was necessary to occasionally pass a bent probe with a swab of cotton through the open portion to allow of respiration and deglutition. As the patient had not slept for sometime, fearing exhaustion, I administered a hypodermic of morphia gr. 1–4, atropine, gr. 1–150. He rested quietly after this for about four hours. This brings us to 2:30 a. m. March 15th, when I noticed for the first time, bleeding from the left side of the nose, bright arterial hemorrhage. I at once packed the nose tightly with iodoform gauze, and hemorrhage from this point was arrested, except a slight oozing through the gauze. It also became necessary to pack the right side of the nose subsequently. The temperature during March the 15th ranged from 97.8 to 99.6, pulse 112 to 136, respiration 22. I began giving ergot in one drachm doses every four hours, and after three doses in one-half drachms every two hours. Dr. Wallace Johnson was at this time asked to remain with the case in my absence and a trained nurse was installed. The afternoon of March 15th, Dr. Taber Johnson met me in consultation and at his suggestion the infusion of digitalis was begun and continued at intervals of from two to three hours, in doses from two drachms to four drachms through the illness. Dr. Frank Baker was with us frequently in consultation. At 10:30 a. m. of March 15th, swallowing caused severe choking and a portion of the clot was carefully removed and relief ensued. This time my attention was drawn to the first purpuric spot, situated immediately above the orbital ridge of left side. These gradually made their appearance over the entire body, and at 6:30, the evening of March 15th, the first bloody urine was passed. The same treatment was continued during March 16th, and during the entire illness, except the introduction of dilute sulphuric acid, given in fifteen drop doses every two hours to control nausea, and fearing the possibility of malarial infection, thirty grains of quinia were given in suppository every twenty-four hours. Bleeding from the kidneys and bladder varied in amount, at times so profuse as to form large clots in the vessel. Hemorrhage from the kidney was shown by the presence of methæmoglobin in urine—by reddish brown color. Hemorrhage occurred from bowels as shown by tarry stools and clots. Bleeding from naso-pharynx required the introduction of compress. This was accomplished with some difficulty, owing to the clot in throat. On March 16th a marked dilatation of the left pupil was noted, and some tingling and numbness was complained of in left heel. No other evidence of intra-cranial hemorrhage was exhibited, nor can I find reason to account in this way for pupillary change and sensation in heel. Pupillary change is probably due to pressure in nose, through sympathetic action. The pupil, in twenty-four hours, resumed the normal size, thus eliminating paralysis of third nerve. Vomiting occurred once, March 17th, due possibly to digitalis; controlled by dilute sulphuric acid. Intra-nasal pressure also caused some blood to be pressed through the lachrymal duct. I think this was the cause as no bleeding occurred from conjunctiva. This caused much irritation of eyes and required their being constantly washed with boracic acid solution. During the afternoon of the 17th and morning of the 18th he was very restless and the first evidence of a typhoid state was observed, exhibited in low mutterings, about 3 p.m.,on the 17th. After this he picked at the bed clothes and wrote incoherently in answer to questions. The amount of urine passed ranged in twenty-four hours, from 40 to 48 ounces. At one o'clock a. m., March 19th, the urine was passed involuntarily, and this occurred several times, but occasionally he would ask for urinal. At 12:30 p. m. of same day there was a large, involuntary, thin, dark movement from the bowels, containing much blood. At 1:30 respiration suddenly increased to 46, and pulse to 160; respiration rose to 60 with Cheyne-stokes character. He soon lost consciousness and notwithstanding the use of oxygen, artificial respiration and active stimulation at 4:08 p. m. he died of apnœa.

The following conclusions may be drawn:

There possibly exists a prodromal period of varying length. That the disease is the result of infection. That changes in blood vessels, blood and nervous system are results, not causes. That the enlargement of liver and spleen, referred to by Letzerich, did not exist in this case. That temperature is never very high. That the neglected tonsillar abscess was probably the cause of infection. That certain other microorganisms may, under suitable conditions, take on morphological changes and produce the same conditions as the bacillus purpura hemorrhagica Letzerich. That supporting measures must be relied upon and hemorrhage checked, and the patient tided over until nature can provide her own antitoxine.

DISCUSSION.

Dr. C. G. Stone: I was called suddenly to see the patient, Mr. E., on the evening of Friday, 13th of March. When I reached the patients' house he stated, that he had tonsillitis with an abscess, which he wanted me to open. He was sitting up and spitting blood, but he could talk slightly. I told him I was sorry, but that I had come away without my case of instruments, but that it was so soft that I could open it with a small new pen knife which I had just bought that day, and which was just as good as any scalpel. He was anxious to get relief. I put my finger into his mouth and explored the abscess and found it high up, pressing the arch of the palate forward, I could also see a small venous rupture upon the surface, just above the pointing abscess. This showed his hemorrhagic tendency, but from the history of the case I had no suspicion that he was going to have purpura. At the mere touch of my knife the pus escaped all over my finger. That evening we were going to have a meeting of the Citizens' Association of Brightwood, and Mr. E. told me to go to it, and fairly pushed me out of the room, showing that he was neither a very sick man nor a very weak one. At that time he had spit about one-half gill of blood and mucus. He could not swallow very well, and he had not eaten anything. The abscess was very large and almost entirely filled the pharynx: it was high up and easily reached. The pus was green showing that it was old. I made the smallest possible puncture with the pen knife, so that there was no possibility of severing an artery. What vessel could have been cut there? It must have been due to a slough. However, an impression went forth from that house (by what means I do not know) that I did cut an artery, and that death was due to that cause. I am indebted to Dr. Compton for the kind words he has spoken to-night.

In regard to this disease: I have seen quite a number of cases within the last five years, but I never saw a typical case until after we had the grippe. The first marked case that I saw was that of a gentleman who was sent to me by a specialist who examined his throat and found that there was a purpuric tendency there. He had one or two spots on the soft palate and one on the side of the tongue. When I saw him I found that he had spots on the breast and arms, which were quite small and of a hemorrhagic nature. I gave him a mercurial purge, followed by a saline, and had the stools and urine retained to see if there was any tendency to hemorrhage from the bowels or bladder. The next morning I found that there was no hemorrhage from these parts, but the throat was literally covered with spots, and there were spots also all over the body, as well as on the conjunctivæ. There was a mild hemorrhage from the nose, and later there was hæmaturia. In this case I considered it the result of the grippe, and I put him on treatment which I had been giving for that disease. In a few days he was very much better, and in a week he was entirely relieved of the symptoms.

The other case was that of a child who was taken in the same way. There was constant bleeding from the gums and posterior nares. There were several purpuric spots on the body and tongue. I gave sulphuric acid in this case and he also got well. I saw one other case in consultation with Dr. Prentiss, which he thought was scurvy.

Dr. J. W. Chappell said: I want to mention a case which came under my notice which evidently was of this character. It occurred in a baby a week or more old. After the cord dropped off there was a small ulceration left, which in a few days began to bleed. I applied alum and other styptics, but the bleeding kept on. Then I applied a plaster of Paris compress, which effectually stopped the bleeding at the navel, but shortly afterwards blood began to ooze through the skin of the external ear. I applied a plaster of Paris compress to this also, but the bleeding did not stop until the compress was thoroughly saturated with blood and the body had become very weak. I do not recall just now how long the little fellow lived, but after a short time there appeared purpuric spots which rapidly spread all over the body before death. I came to the conclusion then that it was due to probable infection through the cord. Dr. Compton, in his paper, spoke of the differential diagnosis from scrobutus, but said nothing of hæmophilia. This disease I believe runs in families, but I could get no history of similar trouble from either branch of the family in this case.

Dr. J. Foster Scott said: I saw, last December, a very interesting case of purpura hemorrhagica. The case had been diagnosed as multiple sarcoma under the skin. When I saw the case the serum had evidently been absorbed and the pigmented appearance of the skin had disappeared. There was no sarcoma, and it soon was evident that she had purpura hemorrhagica. She passed enormous quantities of blood from the bowels, and hemorrhage spots appeared on her limbs and all over her body. As to the treatment: lamb's ribs with the meat scraped off, and then chopped up fine and made somewhat similar to small sausages: patients thus get the marrow of the bone which is favorable to formation of new blood. As she was dying we tried hypodermoclysis or injections of normal salt solution, but without effect.

Dr. Adajah Behrend: I have seen several cases of this disease: they came without any prodromata, and many followed diphtheria. I saw one case in a boy about ten years old who had a few spots over his body. He had a tooth extracted, and soon afterwards I was summoned because the bleeding could not be checked. I saw the same thing in an infant, who was born apparently healthy and remained so up to the fourth week. He was circumcised on the eighth day, but no hemorrhagic condition showed itself until he was four weeks old, when he accidentally scratched himself on the lip, causing an uncontrollable hemorrhage. Dr. Roberts, who was living at that time, was called in, and cauterized the wound, but it went from bad to worse. I was called in the next day and fastened a sponge over the wound, but without avail. All of my cases died. Up to now all the remedies suggested have done no good in aggravated cases.

Dr. Rupert Norton: In regard to what Dr. Scott has said about bone marrow, I wish to remind him that it has been used for the past two or three years in all varieties of blood diseases with little or no effect. So far as I know it possesses value only in chlorosis, where its effects seem to be due to the amount of iron in the marrow, for sometimes it does apparently improve patients with this disease. In pernicious anæmia it seems to have no effect at all. We know so little about the formation of the blood that we cannot be sure of any good results from the use of bone extracts. Thyroid extract is different, for the thyroid gland does secrete something which has a certain marked effect, but bone does not secrete any fluid, as far as we now know. We know positively little or nothing as to where the red or white blood corpuscles are formed.

Dr. Compton said, in closing the discussion: Dr. Stone seems to have had remarkably good results in his treatment of this disease, but I think he must have been dealing with purpura simplex and not purpura hemorrhagica. Purpura simplex is, as its name implies, much less grave and much more amenable to treatment than the hemorrhagic form. All forms of purpura are hemorrhagic. I am sorry the gentlemen who have had cases of Werlhoff's disease have not noticed the bronze hue of the skin which was so marked in this case. It was well marked, and in looking up the records I found only one man—Letzerich—who makes any mention of it. Osler says that as yet we have no drug which can be relied on in these cases. I believe this was a true case of Werlhoff's disease because of profusion of hemorrhage, which occurred in skin, from mucous surfaces, kidney, bladder and intestine. In purpura simplex the spots generally appear first on the lower extremities, but in this case they appeared first on the head and went downwards. They varied in size from a pin head to a thumb nail. Another peculiar feature was the typhoid condition which this case sssumed. He was in a state of coma vigil about three days, during which time, although he appeared to be unconscious, he was alive to everything going on about him. Those cases of marked success in treatment appear to be open to the suspicion of a mistaken diagnosis.

APPENDICITIS: OPERATION AND RECOVERY.

By Geo. W. Adair, M. D., U. S. A.

Private John Burke, battery "G", 4th artillery, 23 years old, enlisted at Harrisburg, Penn., January 21, 1896. Was admitted to sick report February 3, 1896, at three o'clock, p. m.; complaining of pain and tenderness in right iliac region; was put to bed and had hot fomentations to vicinity of pain. Temperature 99.8°.

Feb. 4th. Temperature 99° in the morning, normal in the evening. Given magnesia sulphate which operated readily and freely. Fomentations continued.

Feb. 5th. Temperature normal; fomentations continued; saline repeated.

Feb. 6th. Temperature normal; admitted, what he had previously denied, that two and a half months before he had an attack of appendicitis at his home in Massachusetts and that his mother would not consent to a proposed operation; was willing to undergo an operation now, if it was thought necessary; was given .325 (5 gr.) of salol three times daily.

Feb. 7th. Temperature normal; salol continued; dover's powder .650 (10 gr.) at bedtime—the first narcotic that he had received.

Feb. 8th. Salol and fomentations continued. Temperature normal.

Feb. 9th. Salol and fomentations continued. Temperature normal.

Feb. 10th. Temperature normal; pain and soreness relieved. At his own request he was allowed to get up; went to dining room for dinner and supper; salol continued. At ten o'clock p. m. severe pain began; gave magnesium sulphate.

Feb. 11th. At two o'clock a. m., the nurse reported that the salts had operated, that the pain continued, and that the patient had vomited. Morphine .016 to be given hypodermically. At 8:30 a. m., temperature 101.6°; abdomen tympanitic, with severe pain and tenderness over right side. Given a hot bath, abdomen shaved, scrubbed with green soap and covered with towels saturated with a 1 to 1,000 solution of mercuric bi-chloride.

At two o'clock p. m. etherization was begun, and twenty minutes later an incision four centimetres long was made in the direction of the fibres of the external oblique and about midway between the umbilicus and the anterior superior spine of ilium. The exposed peritoneum was carefully opened when a reddish serum and pus escaped. At the lower angle of the wound a thread of catgut was passed through peritoneum and transversalis muscle, and its ends, secured in forceps, allowed to hang outside.

This incision brought into view the omentum, deeply congested below and gradually shading off into a normal appearance above. On introducing a finger, the iliac fossa and region external to the incision were found vacant. From above was brought down and quickly replaced a knuckle of deeply congested small intestine. The omentum followed downward was found to be adherent to some point below.

To facilitate further exploration, the incision was extended at its lower end until it impinged upon the rectus muscle—now having a length of 7.5 contimetres—this opened vessels that it required some little time to control. Now it was found that a mass wrapped up in omentum was firmly adherent under the internal inguinal ring. By patience, time and more force than was deemed desirable, this mass was peeled from the abdominal wall by the fingers, working upward from below and was brought out of the external wound.

Partly by tying and cutting, partly by tearing, the omentum was separated from the mass, exposing the longitudinal bands of the cæcum, at the end of which was the appendix with two-thirds of its circumference sloughed away. This emerged from a greenish, gangrenous surface on the end of the gut having about the diameter of a twenty-five cent piece. The appendix formed a ring about an inch in diameter, its extremity being buried in new tissue along the back of the gut.

Holding the mass well away from the incision, it was first flushed with normal salt solution and then peroxide of hydrogen was poured over it until all bubbling ceased.

An attempt was then made to liberate what is ordinarily the free end of the appendix. The meso-appendix was ligated and divided. By an incision along its long axis, and by forcing a knife-handle between it and the gut, the appendix was peeled out of its bed for a considerable distance when, considering the raw surface of this deep sulcus more objectionable than the firmly compressed appendix, a fine silk ligature was passed around the later and its free portion cut off, leaving its tip of unknown length buried in the tissues. While doing this a hard fecal impaction about the size of a pea was forced out, the only foreign body found.

The attachment to the cæcum was next considered. After careful inspection, the thickness of tissue seemed to justify the attempt, and the appendix with the gangrenous surface on the end of the gut was sliced off, exposing the glistening fibrous coat of the intestine. No opening into the gut could be found; but an attempt, only partly successful, was made to roll adjacent peritoneum over the cut surface by Lembert sutures. The ends of the suture that seemed most secure were left long and secured by forceps. The gut was now returned to the abdominal cavity under the outer end of the incision, the ends of the Lembert suture resting in the extreme angle.

The glass nozzle of an irrigator was now passed down towards the pelvis and warm salt water solution poured through. It was now found that there was a free oozing of blood from the surface from which the adherent gut had been torn. Compression of the abdominal wall between the fingers and thumb would control it temporarily; but the surface was too far below the incision for useful access with instruments. Very hot water was poured through the irrigator until the bleeding ceased, as it did speedily.

Folded hygroscopic gauze, about the width of two fingers and nearly as thick as a finger, was then introduced, one end reaching well below the raw surface under the internal inguinal ring and the other projecting through the middle of the external incision. The upper and lower thirds of the external incision were now closed first by continuous sutures including peritoneum and deep muscular layer, then by continuous sutures approximating the outer muscles, and lastly by interrupted sutures through skin and fascia, two on either side of the gauze drain. Except the silk one around the appendix, all sutures used in the operation were of catgut. In bringing together the superficial muscles, the long ends of the Lembert suture were threaded, passed through the muscles, and tied as an interrupted suture bringing the abraded end of the cæcum snugly against the abdominal wall. Aristol was dusted over the line of closed incision, several layers of hygroscopic gauze placed over the wound, absorbent cotton over this, and all secured by a roller bandage.

To counteract the shock that began to be noticeable, a hypodermic injection of strychnine was given and the patient put in bed with hot bottles at his feet. Three hours had elapsed since beginning to give the anesthetic; the operation itself lasted two hours and forty minutes.

After treatment.

The patient was given a teaspoonful of water every fifteen minutes, increased to two teaspoonfuls after the nausea from the ether ceased. Later, this was varied by lemonade and beer; the last was found most satisfying by the patient.

One five-grain pellet of salol was given to prevent intestinal fermentation; as the pellet was recovered in apparently good condition from a stool a few days later, such treatment is considered useless.

Nothing else was given by the stomach until the 17th when milk was cautiously begun, supplemented later by a gruel of milk and arrowroot. For five full days the alimentation was exclusively by the rectum. Every six hours, from two to four ounces of pre-digested gruel of milk and arrowroot, with a half ounce of brandy, was introduced into the sigmoid flexure through a soft catheter. These enemata were always retained and produced no irritation. They were discontinued as soon as feeding by the stomach was resumed.

The first dressings were removed on the 13th, forty hours after the operation. They were saturated with a sanious, purulent serum and gave off a very perceptible odor. The parts of the wound above and below the gauze drain were quite firmly united, in fact the gauze was constricted into a neck necessitating care in its removal, which was accomplished by drawing first on one layer of gauze and then another. In the depth of the wound there was no resistence the gauze being unctious from the discharge. The wound was flushed out with salt solution, a small tent introduced, and the wound covered as before. The dressing was repeated daily, but the tent was omitted after the 15th.

On the 15th, to correct a persistent odor, after flushing with salt solution, hydrogen peroxide was poured into and around the wound; this was a little too efficient in its pursuit of pus as the skin and fascia at the upper end of the wound which had appeared firmly united were found gaping the next morning: the muscular union was intact. After a few days, as this gaping threw strain upon the recently united parts below, two secondary sutures of silkworm gut were introduced and secured prompt union.

For two days a solution of carbolic acid was cautiously used after flushing with salt solution, but a change in the appearance of the urine hinted at danger, and a one per cent solution of boracic acid in camphor water was then tried and found so satisfactory that its use as a disinfectant was continued while the wound remained open. On the twentieth day after the operation, the wound had closed except a shallow trench, twenty-five millimetres long through the skin and cellular tissue, and the patient was allowed to leave the bed. Futile attempts were made to hold the sides of this trench together by adhesive strips, but after a few days, as there was a tendency to cicatrization down the sides of the gap, a deep suture of silkworm gut and a superficial one of catgut were introduced; and prompt union followed.

(To be continued.)

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THE EDITOR'S TABLE.

Diphtheria Antitoxin. Since our last issue the Collective Report of the Committee of the American Pediatic Society on Antitoxin has been published. In a word, it is overwhelmingly in favor of the serum treatment. In commenting on this a prominent physician of this city said: "It will silence all opposition. It completely settles the whole question." However, it is well to know that the editor of the Medical Record, in reviewing this report, says: "While the profession may very properly continue the use of antitoxin yet we are very much in need of many more facts before the question can be properly settled." "The great, silent, careful, powerful jury of the profession is not yet ready with its final verdict."

Dr. E. Fletcher Ingals has recently said, "No crucial experiments have yet been made." According to this high authority, the best tests have been made at the Municipal Hospital of Philadelphia, and "unfortunately they show a higher death rate with antitoxin than without it." The former is 28.1 and the latter 25.9 per cent.

The most exhaustive article which has appeared, from any single individual, is published in the Record for June 20th, by Dr. Jos. E. Winters. From this report we learn that the mortality at the Willard Parker Hospital is 24.42 per cent. In the Blagdan Hospital of Copenhagen the mortality is the same, 33 per cent. with and without antitoxin. In the New York Foundling Asylum, in 1894 when no antitoxin was used, the mortality was 24 per cent: in 1895, with antitoxin, it was 45.7 per cent. The Metropolitan Asylum's Board of London gives the mortality in tracheotomy cases as 10.2 per cent higher in those cases treated with antitoxin.

Dr. Jos. Ewing treated fifty patients with antitoxin, with a death rate of 38 per cent. Dr. W. W. Seymour reports a mortality in intubation cases treated with antitoxin, of 33.3 per cent, and 14.2 per cent of those treated without it. Sonnenburg of Berlin, gives a mortality of 37.8 per cent in tracheotomy cases treated with antitoxin and when the serum could not be obtained his mortality was 37.1 per cent. Dr. Winters also gives a startling array of figures to prove the injurious effects of the antitoxin in producing paralysis and albuminuria.

While the testimony is still rapidly accumulating in favor of antitoxin, yet when a man makes the statement that "all opposition is dying out," he certainly shows he is not familiar with recent literature on the subject.

Hydrophobia. When we were shown a circular issued by the Society for the Prevention of Cruelty to Animals to the effects that there was no such thing as hydrophobia we were inclined to ask, What will these misled but well meaning people do next? But, according to an exchange, Dr. I. C. Rosse of this city, read a paper before the American Neurological Association at Philadelphia on Newspaper Rabies, in which he said: "Among competent surgeons and neurologists there is a wide difference of opinion and even irreconcilable diversity as to the existence of genuine hydrophobia in man; there is also considerable diversity of opinion concerning the exact value of the Pasteur method of treatment. There is also a difference of opinion as to whether pseudo-hydrophobia ever produces death." In view of these facts Dr. Rosse says that newspapers are not to be blamed for publishing statements inconsistent with medical facts. To be sure but few medical men have ever seen a genuine case of hydrophobia in man, and yet we cannot understand how anyone can fail to believe in its existence. Take fatal cases which have occurred in our own city. What is the explanation of the fact that when rabbits are inoculated with cultures made from the nervous systems of these fatal cases, in a few days they have all the symptoms which are recorded in the best text books as belonging to hydrophobia in a dog? It is a fact that when a dog has certain symptoms and bites a human being, these symptoms appear in that person sooner or later. It is a fact also that without treatment both the dog and the person almost invariably die. It is a further fact that all these symptoms can be reproduced in a rabbit by inoculation. Those who do not believe in any such disease as hydrophobia in man but hold that all the symptoms are manifestations of fear must also believe that the rabbit has such a highly developed nervous organization that these symptoms follow the inoculation simply as a result of the mental processes of that wonderfully brilliant animal!

The Woman's Medical Journal. Some months ago we had good occasion to call attention to this journal concerning the nature of one of the advertisements which was to us extremely objectionable. But recently another instance of lack of good judgment has shown itself to a remarkable degree. The medical advertisements in the "Daily Medical Journal" (Post) of this city will hardly be compared with the one which appears in this orthodox monthly of Toledo. Here is a portion of the advertisement which shows its character at once:

> **'JUST WHAT YOU WANT!**
>
> Our—
>
> 'TURKISH EMMENAGOGUE CAPSULES.'
>
> Give RESULTS, after all others fail.
> A specific in Suppression."

We always expect the best things from women, therefore it is impossible to understand how a respectable journal could so forget itself as to sell all it has for the sake of the few dollars which such an announcement would bring.

Grim Humor. An army surgeon has recently asserted that many persons who are supposed to be dead are really buried alive. He recommends that a bottle of chloroform be buried with the corpses in order that if consciousness should return the person will at once inhale the fumes of the anesthetic, and be permanently put to sleep. Commenting upon this the Medical Record says that "cremation is a better prevention of revival than chloroform."

COMMUNICATION.

July 10, 1896.

DEAR DR. STOWELL:—

I find that I have made a mistake in reporting my months' work for May. The work was done in April and the mistake was made in copying the report. I was away from the city during part of the month of May, hence did not have so many cases to report. The cases, sixteen in number were all done during the month of April, 1896. Since the publication of the report I have received letters from physicians attending two of the cases.

Case number nine Dr. Etchison writes, is doing very well. The report shows that she has an ovarian tumor which could not be removed.

Case number seven is entirely well after the removal of an adherent and diseased uterus, which prevented the closure of a fecal fistula, a result of an operation for pus in the pelvis.

Case number eight was reported not relieved of menstrual epilepsy. The following letter from Dr. James Scott of Virginia, will explain itself:

"July 5, 1896.

DEAR DR. STONE:—

Your card to hand and I am glad to report that Miss —— case promises to be a complete success. I saw her uncle, who lives by her, day before yesterday, and I made particular inquiry in regard to her condition. He said her health was good and that she had not had a single attack since she returned from Washington, but mentioned the one that you reported to me as occurring there. Notwithstanding I was convinced that her trouble was of ovarirn and uterine origin I was not prepared to see so rapid and complete relief in a case so soon, and of so long standing as hers. I must congratulate you both on your judgment and surgery. If you have any more such cases do likewise and may the Lord be with you."

Yours truly,

I. S. STONE.

Everybody is ready to congratulate Dr. S. S. Adams on his election to the Presidency of the American Pediatric Society at its last meeting, held at Montreal. We are all proud also that another of our number, Dr. Frank Hyatt, has been elected president of The American Laryngological Society.

Dr. Joseph Taber Johnson has been elected one of the honorary Presidents of the International Periodical Congress of Obstetrics and Gynecology, which meets in Geneva, during the first week in September. The President has appointed Dr. Johnson to officially represent the United States government at this Congress. Dr. Johnson will sail the latter part of July and return by middle of September.

In speaking of a certain lithia water an exchange says "It is the only medicinal water ever discovered in America". For the price of a new hat we will furnish the editor with a list of at least one hundred.

No use waitin' fer the wagon,
  Loafin' life away!
Corn needs hoein',
Keep a-goin',
  Meet it on the way!

No use waitin' fer the wagon,
  Life is but a day;
Time is lackin',
Hay needs stakin',
  Meet it on the way!

No use waitin' fer the wagon,
  Hair is growing gray;
Storm-winds hummin',
Night is comin',
  Meet it on the way!

—Chicago Times-Herald.

BOOK REVIEWS.

HOW TO FEED CHILDREN. A manual for mothers, nurses and physicians. By Louise E. Hogan. 250 pages. Illustrated. Price $1.00. J. R. Lippincott Co., Philadelphia. 1896.

Whenever one takes up a book of this kind the mind naturally runs to the frightful statistics of infantile mortality. Only this day we read that in some European cities this is as high as sixty per cent for the first year, while in some of the best cities it is even twenty-five per cent. Mrs. Hogan writes in the hope that her words may reach mothers who fail only through ignorance in caring for their young children. She gives us a book which is not intended to displace the physician but rather to tell the mother when he should be sent for, and how to aid him in his efforts. The book is certainly very reasonable in price, especially considering the substantial and handsome manner in which it is presented, yet it is to be hoped that some philanthropist will order a copy sent into every home where there is a young child. Great changes are bound to be made in our treatment of infants. It is inexcusable that such vast numbers of them die at such an early age. Therefore, we feel like personally thanking the author for her contribution to this field of preventive medicine.

PRACTICAL POINTS IN NURSING. For Nurses in private practice. By Emily A. N. Stoney, Superintendent Training School for Nurses, Carney Hospital, South Boston, Mass. 73 engravings, 9 colored and half tone plates. 450 pages. Price $1.75 net. W. B. Saunders, Philadelphia. 1896.

That there is an immense difference between private and hospital nursing is known to all familiar with these two conditions. The author understands this and instructs the nurse how to meet the various emergencies of medical and surgical cases, when thrown on her own resources, or when away from medical or surgical aid. Descriptions are given of the principal diseases and the treatment likely to be adopted by the family physician, in order that said preparation may be made. A special feature of the work is the directions given how to improvise everything ordinarily needed in the illness of a patient. The author realizes the embarrasement of the nurse from want of proper appliances, and she gives simple directions how all these embarrassments may be overcome. There are also many receipts for invalid diet and beverages, and a full glossary of medical terms and nursing treatment. As one reads pages here and there he is impressed with the fact that the author is thoroughly acquainted with her business and is no stranger to the best manner of imparting instructions.

WEIRS' INDEX TO THE MEDICAL PRESS. This is a new monthly journal devoted to Medical Bibliography; published by Frank Weir & Co., of New York. The first number appeared for April 15th. The subscription price, $3.00 a year.

While no one can doubt the value of such a publication as this, yet we must express the fear that it can never be anything like a financial success. If the publishers who are engaged in the publication of text books can use it to their own advantage sufficiently to warrant them in the outlay of a considerable sum of money then it is possible a journal of this kind may be a profitable venture. Otherwise we are sure there is no special demand in the profession for a journal so expensive to publish.

FIELD FLOWERS. This is a special edition of a number of Eugene Field's most popular poems, illustrated by thirty artists of the very highest talent. From the proceeds of the sale of this choice volume will be erected a monument to our beloved poet. Who did not love this noble man? Who would not like to contribute to the erection of a monument to his memory? The price of the volume is only $1, which is about one-fifth the price we would be obliged to pay for it under other circumstances. A copy of this handsome volume can be obtained by addressing The Eugene Field Monument Fund, 180 Monroe St., Chicago, Ill.

THE POPULAR SCIENCE MONTHLY for July contains a very interesting article on the influence of the mind in the cure of disease. The writer, Prof. W. R. Newbold, credits this agency with many useful results.

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PUBLICATION COMMITTEE:
W. W. JOHNSTON, M.D., GEO. M. KOBER, M.D., JAS. D. MORGAN, M.D.

APPENDICITIS: OPERATION AND RECOVERY.

By GEO. W. ADAIR, M. D., U. S. A.

(Continued from the August number. Meeting of April 15th.)

The history and progress of this case have been so minutely and prolixly detailed, with no idea of advancing surgical art, with no intention of illustrating expert methods: such literature is well supplied by experienced masters, but, as the operator in this case had never seen an operation for appendicitis, it is thought that the impressions and experience of a novice may be of interest and value. With the same thought the following observations are appended:

In a service of over twenty years, twice has the writer stood idly by and watched a soldier die under similar conditions. In the presence of a successful operation, it may be thought that he now stands ready to say, *mea culpa*; but such is far from being the case. Under less favorable conditions, he believes that operation would have failed to save those lives, and would only have cast upon surgery the opprobrium that ever attends an unsuccessful operation. The more favorable conditions in the present case are worthy of consideration.

Firstly: A wise provision has set apart in this hospital a special operating room, with gas stoves, sterilizers and other appurtenances conveniently at hand.

Secondly: Last fall Major Walter Reed of the Medical department kindly offered to give a private of my detachment a course in practical bacteriology, and Private Musgrave (since appointed Acting Steward) was sent every afternoon to the Army Medical Museum for that purpose. Of course bacteriology in itself would be of little importance to a hospital corps man, but I know of no better training to teach the minute precautions necessary to aseptic surgical work, and believe that an advanced step in military surgery will be taken when at least one man in every detachment shall have had such laboratory training.

It may be argued that as this case was septic to begin with, aseptic precautions were of little moment. The question of dosage is an important factor in sepsis and that a man is already charged with ptomaines is a most valid reason for carefully guarding him from further infection. It may well be believed that this patient owes his recovery to the securing of healing without suppuration in the most vital part of the wound—about the cæcum.

Thirdly: Able assistants were found in Captains Gandy and Keefer. This operation is necessarily a slow one and was found in this instance somewhat perplexing. Every step is exposed to possibly fatal oversights. The element of time is an important factor in the prognosis. The patient lived through an operation lasting two hours and forty minutes; at the last end even ten minutes may make the difference between success and failure; and every delay in the course of the operation is carried over to be accounted for at the dangerous end. The importance of intelligent assistants—quick to see and ready to act—cannot be overestimated.

Alone, at a frontier post, the surgeon who attempts this operation will be liable to find himself in deep water, very like a lone fisherman in a squall compelled to manage both rudder and sail: he may weather the gale, but, if he does, he may well make his bow and thank-offering to good fortune, for his chance of being swamped will have been much the greater.

The first criticism upon this operation will be that it was postponed too long. It is to be feared that this will always be the case. In the absence of urgent symptoms, fever, vomiting, intestinal obstruction, etc., with a degree of pain that scarcely requires narcotics, who can say that this tenderness is not transient and harmless? Who will urge patients to undergo an operation for a condition that is not evidently dangerous, and one that often passes speedily away?

There was no exudation into the abdominal wall, with a finger inside, it was still soft and pliable; outside there was nothing to guide directly to the seat of the trouble. The absence of exudate in the wall of the abdomen is a useful indication that the trouble is entirely within the cavity, for any involvement of the parietes is quickly followed by a widespread exudate.

Here, deep within the abdomen was a slow forming abscess, painful and sore from distension, with no resisting backing, palpation could not demonstrate it. It caused no more general disturbance than would a boil of equal size. Like a boil, the escape of its contents gave ease. This transitory ease, followed by sudden pain and inflammation, tells exactly what has happened and gives indisputable justification for operative interference. Except after repeated attacks, or in centers of population where the grouping of cases gives certain individuals a large experience of these conditions, an earlier operation can hardly be expected.

Nor is it to be presumed that this patient's condition would have been better had an earlier operation been performed. Suppose that the external incision had been made three days sooner and the adherent mass demonstrated. It would have been folly then to have torn the mass loose, to have broken down nature's protective adhesions. Clearly the proper course then would have been to cut down directly on the mass. With the cæcum so closely bound to the abdominal wall, there would have been great danger of cutting into it, with a resulting fistula. If this were avoided, in dissecting to find the abscess, there would be danger of perforating the abscess wall, allowing the contents to escape into the peritoneal cavity when the condition would be as it was actually found—plus another opening in the abdominal wall. If the abscess were fortunately opened without accident, it would be unwise to seek the sloughing appendix, to attempt to remove it with other dead tissue; and the healing of such an abscess would be tedious, with a strong probability of a fecal fistula.

In the present case, with the abscess already ruptured into the peritoneal cavity, the advisability of a second incision directly over the adherent mass was considered. It was clearly too late to leave dead tissue to be thrown off by the slow processes of nature, with an already existing opening into the peritoneum; and the difficulties and delays of the necessary dissection were deemed more dangerous than the method adopted.

Leaving the tip of the appendix is not advised by the authorities, but the reason already given seemed to justify the precedure. The silk ligature was applied with the hope of shutting in for a long time a possibly infected mucous cavity; it was also possible that the nutrition of the part of the appendix toward the cæcum, so nearly separated by sloughing, was maintained by a reversed circulation, and there might be bleeding if it were left without ligature.

An instructive example of wandering attention may be mentioned in this connection. Before calling for the ligature, the operator satisfied himself that the sulcus was deep enough to allow the stump to be buried within it, that a single catgut stitch would bring the walls together over it and render assurance doubly sure. When the freed portion of the appendix was straightened out, his attention was attracted by the more perplexing problem, what to do with the dead tissue on the end of the cæcum, the little silken knot was forgotten, and the sequence of the succeeding steps of the operation was so absorbing, that it was not again thought of until the patient was in bed. No harm resulted, but a useful moral may be drawn: In an operation of successive steps, each step must be completed before proceeding to the next.

In slicing off the dead tissue, the operator was very conscious of the danger of opening into the cæcum, either through the outlet of the appendix or by direct incision. In the tissues, so stiffened by inflammatory deposits, it would have been very difficult to close such an opening; but the danger of returning sloughing tissue to the abdomen was still greater.

It is to be regretted that the President of the Antivivisection Society was not present to see the operator attempt to cover the abraded surface by Lembert sutures. He would have admitted that certain things can only be learned by practice, and, considering the importance of the result, that the operator would be justified in making a few dogs suffer in the cause of humanity.

There was a strong probability that some septic material had been left behind on the surface from which the adherent mass had been torn, and, as it was deemed very important, if possible, to avoid further suppuration around the cæcum, this gut was moved away to the further end of the external incision. The deep anatomy of the parts was not investigated, but the meso-colon must have been stretched so that the cæcum could have been planted almost anywhere. Had the circumstances rendered it desirable to move the gut entirely away from the external incision, the operator would not have hesitated to perforate the abdominal wall with the retaining ligatures.

The injurious effects of hot water on the peritoneum were not forgotten; but to promptly check the hemorrhage was of prime importance, and, with a free outlet, the water flowed in and out without diffusion among the intestines. Owing to gaseous pressure within the intestines and blood pressure, the peritoneal cavity is one with no vacant space. In this case there may have been a wall of protecting adhesions from the previous inflammation, but in any case, with a free outlet, the fluid pressure is that of a column of water only a few inches in height, and a general diffusion of the fluid through the cavity is not to be expected; it could only be secured by blocking the outlet.

The large gauze drain is not approved by all authorities, but, in this case, it was introduced to hold other tissues away from the probably septic surface from which the abscess had been torn. To receive septic discharges into the folds of the gauze was to postpone infection; even a few hours would be sufficient to form or strengthen a protective wall of lymph. It is believed that this was accomplished, and that there was never any suppuration around the cæcum in its new location. Should there have been a recurrence of hemorrhage from the bleeding surface, no new adhesions would have to be broken up to gain access to it.

The withholding of food from the stomach was an attempt to secure functional rest for the beginning of the large intestine. It may not have been necessary in this case, but, in cementing weak places, time is an important factor and in a case that seems so precarious every precaution is deemed advisable.

In giving the history after operation, the temperature was forgotten and a brief account of it will be given here. It was taken hourly except when the patient was asleep. It generally varied between normal and a fraction above 99. The times when it reached 100 or higher were as follows:

February 12th.	7 p m. 100.4; 8 p. m. 100; 9 p. m. 100.
" 13th.	2 a. m. 100.2; 3 a. m. 100.
" 14th.	Midnight 100; 1 a. m. 100.4.
" 15th.	3 p. m. 100.4.
" 17th.	7 p. m. 100.
" 18th.	6 p. m. 101. (The highest point reached.)
" 19th.	4 p. m. 100.8; 5 p. m. 100.8.
" 20th.	6 p. m. 100.

In closing so long a report, the patient reader should be rewarded by some wise and useful apothegm. The writer can think of nothing better than this remark: Appendicitis is purely an affair of the large intestine; and the less of small intestine the operator sees, the better it will be for his patient. No small intestine will be found in the iliac fossa, and it will be well to begin digital exploration there, working inward, and always remembering that the large intestine is the boundary of our province; we will all pause before crossing the Rubicon.

DISCUSSION.

Dr. Jas. Kerr: I would like to congratulate Dr. Adair on the very interesting address we have just heard, and upon the picturesque and graphic way in which he has described it. I think he has nothing to regret and nothing to be ashamed of in his operation, and if he has another case he has only to do as he did in this. I do not see where he has made any mistake, so far as I am able to judge. In cases of appendicitis it is always difficult to say when we should operate and I do not believe we should operate on all cases, but I think Dr. Adair certainly operated at a most favorable time. If I make any criticism at all it is only that perhaps Dr. Adair was a little too conscientious in his attention to details. He took very much more trouble than I would have done in removing all septic material. There was no danger as long as the stump was shut off from the cæcum, and the condition would have taken care of itself by treating it as an open wound and allowing granulation and cicatrization to do the rest. The whole success in operating in these varieties of appendicitis consists in keeping inside the infected area. If you are able to keep in the region of the large intestine, as Dr. Adair points out, and not cross that Rubicon which is attended with such fatalities, you can operate without harm. The operation of ligating the appendix without removing it I consider good surgery. There is no harm so long as you close off the stump from the cæcum, and if it is ligated close to the cæcum you have fulfilled every essential condition of ideal surgery in these cases. I feel that it is not a desirable thing to try to remove the appendix except where that can be done without danger of infecting the whole peritoneal cavity. The operation which Dr. Adair performed, and which I have done recently, of ligating the base of the appendix and leaving the rest to take care of itself seems to offer the best results in some cases.

Dr. A. F. A. King: I would like to call attention to a means of relieving the unpleasant after effects of ether as recently reported in several medical journals. The headache, intoxication and vomiting following etherization are entirely relieved by inhalations of oxygen. Patients wake up without headache and without vomiting when allowed to inhale oxygen. I consider it very valuable in these cases and in obstetrics. Many of us have used inhalations of oxygen in pneumonia, phthisis, etc., with good results, and I thought it might be interesting to make its usefulness in this field known.

Dr. Geo. M. Kober: We have in our midst this evening a recently elected member of the French Academy of Medicine who has himself undergone this operation—Dr. C. W. Stiles—and the Society would be very glad to hear from him.

Dr. Stiles said: My interest in appendicitis is now rather a thing of the past, as my appendix is in Johns Hopkins hospital. As to the time when the operation should be performed, if I were a bird and had two appendices (or cæca) I would have both taken out between attacks. I suffered from recurring appendicitis for six years or more, and on one occasion some of my friends were anxious to operate but I was in bachelor quarters at the time and declined the operation. As soon as I recovered from that attack however I went to the hospital and was operated on during an interval. I had the comforting assurance from Dr. Welch that I could not have lived forty-eight hours longer, and as I went on the table I told Dr. Halstead that he had better hurry up as I felt another attack coming on. Having had such an experience I am naturally inclined to advise other persons with recurrent attacks to do the same thing, but perhaps my experience might not be that of others.

MEETING OF APRIL 22, 1896.

Dr. S. C. Busey, President, in the Chair.

Ovarian Abscess, Pus Tubes and Fibroid Tumors; Operation. Death from effects of ether and shock.

Dr. Joseph Taber Johnson presented the following specimen which he had removed from a patient two days before, namely, the sac of an ovarian abscess which had contained a pint and a half of foul smelling pus; two tubal pus sacs; a fibroid tumor the size of a cocoanut, another the size of an orange, and a portion of thickened omentum. The patient had the following history: She had been in fairly good health up to three months previous to the operation, when she had an attack of typhoid fever, which confined her to the house for nearly two months. She had been attending to the duties of her government clerkship for about four weeks, when she was seized one day with very severe pain in the right side of her abdomen. She was taken to her boarding house in a carriage and sent at once for her physician, Dr. J. R. Bromwell, who found it necessary to give several hypodermics of morphia before she became comfortable: peritonitis rapidly developed and was treated by Dr. Bromwell and Dr. Cuthbert in consultation for nine days, when Dr. Johnson was asked to see her in consultation with reference to an operation. On account of the distension, pain and tumefaction, the diagnosis lay between an ovarian and apendical abscess. A fibroid about the size of a child's head was also made out blocking up the pelvis. Dr. Johnson agreed with Drs. Bromwell and Cuthbert that an immediate operation was necessary to save the patient's life. The patient readily agreed to this proposition and was conveyed by Dr. Bromwell to Dr. Johnson's sanatorium the same evening. She rested the following day, during which preparation was made for the operation, which was performed early the next morning in the presence of Drs. Bromwell, Cuthbert, Bowen and Wallace Johnson. Ether was administered with a Clover's inhaler by Dr. Wallace Johnson, who had given ether satisfactorily and skillfully in at least a hundred operations for the operator. Upon opening the abdomen intense general peritonitis was demonstrated; the omentum being greatly thickened and adherent both to the abdominal wall and to everything underneath it which it touched. After being separated and turned back, the coils of adherent intestine were separated from each other and a large abscess sac. In separating the adhesions underneath this sac, its walls ruptured and at least a pint and a half of horribly smelling pus was discharged into the abdominal cavity and through the abdominal wound; this was washed out and mopped out and large pus tubes removed from each side of the uterus; the fibroid tumor was then separated from its adhesions in the pelvis, another was separated anterorly and removed without removing the uterus; the separated portion of the peritoneum and broad ligaments were stitched together; the portion of the thickened and inflamed omentum, as large as one's hand, was also removed and the bleeding surfaces ligated; the abdominal cavity was washed out with several gallons of hot water; the peritoneal toilet completely and carefully made, the drainage tube put in and the wound three-fourths closed, when the patient suddenly stopped breathing; she had been on the operating table up to this time exactly forty-three minutes. Every effort was made to resuscitate the patient for at least two hours, including the use of artificial respiration, pearls of nitrate of amyl, the hypodermic injection of strychnia, digitalis, whiskey, sulphuric ether, transfusion of a normal salt solution, stretching the sphincter ani, holding the patient with the head downwards, injecting a hot saline solution in the rectum, etc., but all to no avail, she was dead from a combination of the effects of ether, shock from the operation and a weakened heart due to her previous attack of typhoid fever. Dr. Johnson had taken considerable pleasure and some pride in reporting several cases of successful operations to this Society, but he now considers it his sad duty to report this death which had occurred day before yesterday under the circumstances mentioned. He had performed a number of operations in which there had been a greater loss of blood and which had occupied a longer time without disastrous results. In this case it was not possible to delay an operation any longer in order to improve her general condition, and there was no way in which the operation could have been shortened without leaving inside the abdomen conditions which would have soon produced a fatal result. The case is reported for the lessons which it may teach.

DISCUSSION.

Dr. I. S. Stone said that thanks were due the man who was brave enough to come to the Society and present specimens that were unfortunately connected with death. Failures were much more instructive than successes, and he had no doubt that Dr. Johnson had learned much more from the cases he had lost than those he had saved. He had noticed that since the prevalence of influenza and typhoid fever it was necessary to exercise far more care in operating than formerly. He had had a case on which he operated for a tumor below the umbilicus, and lost his patient. She had had an attack of "la grippe" and he supposed he had not waited long enough before operating, for she could not withstand the shock. He believed she would not have died but for the preceding illness.

Dr. Acker asked Dr. Stone what lesson he would draw from Dr. Johnson's case: whether it would be to employ chloroform?

Dr. Stone replied that he had not drawn any lesson from it, for it did not throw any new light upon the question of chloroform versus ether. He had not heard Dr. Johnson say anything about the condition of the kidneys.

Dr. Johnson stated that the urine had been examined two or three times and found normal. The kidneys were examined after death and they were found normal also.

Dr. Stone, resuming his remarks said, that the ordinary methods of examining the urine were unavailing, as Dr. Acker well knew. Operations were done on patients in whose urine there was not a trace, or only a mere trace, of albumen, yet after the operation the urine would be loaded with albumen, showing that the anesthetic had set up a nephritis, and this nephritis often resulted fatally. Ether had been charged with causing this condition, but he was sorry to say that in some cases where chloroform was used the same trouble had followed.

Dr. Behrend said that in albuminuria and puerperal eclampsia ether was commonly used. He had delivered several patients whose urine was loaded with albumen and had employed ether in these cases without any bad effects.

Hysterectomy for Fibroids, Complicating Pregnancy.

Dr. H. D. Fry presented a specimen with the following history: L. G., colored, age 33 years, was admitted to Garfield hospital, March 13th, 1896, complaining of abdominal and pelvic pain: last menstruation December 20, 1895, previous to which time she had been greatly exhausted by profuse hemorrhages.

Palpation showed a hard, movable tumor extending up to the umbilicus and over the right side of the abdomen. Vaginal examination—cervix soft, uterus enlarged and a hard nodular tumor felt in the left side and low down in the pelvis.

Diagnosis—Pregnancy at third month complicated with fibroid tumors of the uterus.

The tumor situated in the pelvis on the left side precluded all chance of delivery at term by the natural passages. At first it was thought possible to let the case progress to viability in hope of saving the child, but the pain increased so much after a few weeks that the operation was performed. On opening the abdomen a fibroid as large as a cocoanut was found attached to the fundus by a pedicle, a second tumor occupied the side of the left cornu and the third growth was low down in the pelvis on the left side.

The uterus was amputated at the cervix and removed with the tubes and ovaries. Opening the organ it was found to contain a fœtus about four months of gestation. Patient made an excellent recovery.

In view of the high rate of mortality of these cases under different methods of treatment, the question of hysterectomy comes prominently forward. It is interesting to know that four cases have now been treated in this city by this method, three of them within the past two weeks, and all recovered.

DISCUSSION.

Dr. Jos. Taber Johnson said: Dr. Fry's specimen is one of very great interest and one of the number of four referred to as having been successfully operated on recently. All remembered what Dr. Fry had said about the mortality of this operation when performed later on—a mortality of eighty per cent. Dr. Murphy of Chicago, reports in a medical journal in the last few months that he has performed this operation at the fifth month. The sad thing about this operation is that they cannot all be allowed to go on to viability of the child. But unfortunately we cannot wait in most instances. In the case that I operated on, the woman had been sick in bed a month or six weeks, and her suffering was so great that the operation could not be postponed. So that while it is easy for critics to say that here was a child's life lost by the blood-thirsty doctors anxious to rush into surgery, they were all necessary operations, and I do not see how we can avoid doing them under the circumstances described.

Pyosalpinx; New Method of Removal Without Rupture.

Dr. I. S. Stone presented a very large pyosalpinx, measuring fourteen inches in length and eight inches in circumference. The history of the case was not given, the specimen being exhibited to illustrate the method of removal without rupture, which Dr. Stone has found successful in a majority of instances. The tube is cut away from the uterine cornua, the ovarian artery tied and the specimen shelled out from behind the broad ligament first. The working space is far greater than by the old method. The broad ligament is closed by a running suture of silk or catgut. The uterine cornua can be easily escsected at the same time.

DISCUSSION.

Dr. Jos. Taber Johnson: Dr. Stone's case is extremely interesting as proving his theory that such a large pyosalpinx can be removed without rupture by the method he advocates. The experience of operators in cases like this, where everything is adherent, is that in separating and enucleating this tumor from its bed of adhesions the tumor is likely to rupture, and empty its contents into the peritoneal cavity, necessitating a flushing out of the cavity. This method of ligating off the tumor down by the side of the uterus and the side of the pelvis before enucleation is a step in advance.

MEETING OF APRIL 29, 1896. Dr. S. C. Busey, President, in the Chair.

BUSSINI'S OPERATION FOR INGUINAL HERNIA, WITH THE EXHIBITION OF TWO CASES.

By A. R. Shands, M. D.

The subject of an operation for the radical cure of inguinal hernia is one that has been of great interest to the surgical profession from time immemorial. This can be accounted for by many reasons: among them I might mention the frequency of the affliction as well as its danger to life and also because it debars the individual from so many of the usual avocations of life. This interest has been much intensified by the numerous setbacks the pride of the surgeon has experienced in seeing his best efforts to devise what really seemed for a time to be a radical cure, prove unavailing.

I will not attempt an enumeration of the different operations that have been devised by different surgeons, suffice it to say that up to a few years ago none have given sufficiently good results after the test of time to cause many of the eminent surgeons to imitate the example of others beyond that of a mere trial.

This, of course, accounts for the numerous operations, each surgeon endeavoring to devise some method of his own.

At the present day all of the surgeons the world over are doing practically the same operation. It seems to have been left for the genius of Bussini, an Italian surgeon, and Halstead of the John Hopkins, to devise the operation that has best stood the test of time. The difference between Halstead's operation and that of Bussini's, with the exception of some minor points, is so slight that when it is appreciated by you I am sure you will think that they are practically the same.

The honors are divided between Halstead and Bussini, for they were both doing practically the same operation at the same time, each ignorant of the other's wrok. The first reports of their experiments were published about the same time.

The remarkable good results that have been reported from different parts of the world of the success of Bussini's operation should convince the most skeptical that the days have come when one may operate on almost every case of hernia not only without danger to the patient, but with almost certain prospect of permanent success. In 1892 Bussini reported 251 cases with seven failures, and Halstead reported in 1893 eighty-two cases with no failures.

W. B. Coley of New York, writes me that he has operated after Bussini's method 240 times with only two relapses.

I have operated on ten cases within the past two years and up to the present time my results have remained perfect. The cases I show to-night are a fair representation of the ages of my cases, the sizes of the hernia have varied from a hen's egg to that of a large cocoanut and in duration from five to thirty years. Before showing these cases I will explain the technique of the operation for the benefit of those who are not familiar with it.

When we consider the thoroughness of the operation I do not think you will consider the good results astonishing, for it does seem to me that a hernia would be less likely to recur at the seat of operation than at any other place in the abdominal wall. Of course the field of operation should be rendered scrupulously aseptic as in any other abdominal operation.

An incision is made through the skin and fascia parallel with Poupart's ligament and one-half inch above it, and extending in length from a pcint just above the internal abdominal ring to a point over the external ring. Certain rules for locating these rings are laid down in surgical anatomies, but I have found the most convenient way of doing it, is by inserting the index finger up the inguinal canal until the circular fibres of the internal ring are felt; when this is done, I make a spot just over tip of my finger with the point of a scalpel and as the finger is withdrawn I locate the circular fibres of the external ring and scratch a point there. The distance between the points thus marked will be the length of the incision. The skin, superficial and deep layers of fascia having been divided, the aponeurosis of the external oblique comes plainly in view. The next step is to divide the aponeurosis from the external to the internal ring and when the divided edges are well dissected back on both sides, the hernia sac will be exposed to view; an excellent method of divided the aponeurosis is to pass a grooved director up and under it as far as the internal ring and then divide it with blunt pointed scissors. In this way all danger of injuring the hernia is removed. The edge of the aponeurosis continuous with Poupart's ligament should be dissected back until the ligament comes plainly into view. If this is not done the first layer of buried sutures can not be put in the right place. The sac and contents should first be separated *en masse* from all of the surrounding tissues from the internal ring to the distal end of the hernia. After this the next step is to separate the cord and its accompanying structures from the sac. This being done the sac should be carefully opened to ascertain the nature of the hernia you have to deal with.

Then the hernia should be carefully restored to the abdominal cavity and the sac divided after tying it off just as high as possible; as soon as this is done the stump will at once retract into the abdominal cavity. This completes the first part of the operation.

The second part is the closure of the wound. I neglected to state at the proper place that if on opening the sac you find that you have a congenital sac, that is a sac continuous with the tunica vaginalis, the scrotal portion of the sac will also have to be tied off.

The wound is closed in the following manner: The cord is held out of the way by a blunt retractor against the upper margin of the internal ring and the internal ring is closed up to it; a floor is thus made for the inguinal canal by introducing four or five kangaroo sutures, first through Poupart's ligament, then across and through the muscular fibres of the internal oblique and transversalis muscles, but do not include the aponeurosis. The last suture will include not only fibres of these muscles, but also their conjoined tendon. The cord now is let down on the internal oblique and transversalis, which have been sutured to Poupart's ligament. The divided margins of the apeneurosis are now brought together and sutured with a continuous suture. Over all of this the skin and fascia are brought together and sutured, no drainage being used.

Case 1. Age seven and a half years. First seen May '94. At that time hernia the size a hen's egg. Applied a truss for eighteen months. Truss would hold hernia up which would return as soon as the truss was removed. Was operated on the 7th of January, '96. Found hernia to be omental with a little string of it stretched along the whole length of the sac and adherent at distal end which demonstrated the necessity of the operation. Operated in thirty minutes. Wound healed by primary union. Temperature never going over 99°. Child allowed up on tenth day with the wound supported by a compress.

Case 2. Age 59. Had a hernia for thirty odd years. Hernia the size of a large cocoanut on left, right side a little smaller. Operated on October 15, '95.

When the aponeurosis was slit up the internal ring was found to admit the four fingers of my right hand up to first phalangeal joints. Omentum found to be adherent to sac along its entire length. This complication prolonged the operation, in which 1¾ hours were consumed from start to finish. Wound healed by primary union. Temperature to 100° within the first twelve hours and never over 99° after that. Patient allowed up on tenth day and left hospital on fourteenth day after the operation, wearing a compress pad and figure "G" bandage.

DISCUSSION.

Dr. Jas. Kerr said: The subject of hernia is very interesting, and one which deserves careful consideration. As to the different operations which have been devised from time to time to accomplish a permanent cure of this condition, there seems to be at present a strong feeling in favor of the method of Bussini. My own experience in operations for the radical cure of hernia extends back a considerable time, using at first Macewen's operation, and I was very much pleased with it, but I consider that Bussini's method of dealing with the cord and abdominal wall offers advantages over every other method. I became convinced of the advantages of Bussini's operation, or Halstead's modification of it for opening the abdomen, but I still prefer Macewen's method of stitching the cord and generally use a combination of the two. Macewen's method of strengthening the abdominal wall is much superior to any other. As he describes his method it is one by which he draws over the attachment of the conjoined tendon to Poupart's ligament, so as to overlap the conjoined tendon and thus restores, to some extent, the original condition of the canal. The secret of the success of the operation for the radical cure of hernia to-day depends on the new method of transplanting the cord. The success of Bussini's and Halstead's methods depends upon this. As to the treatment of the sac my own impression is that a full incision into the abdominal sac, as advised by Halstead, and stitching it across, is less likely to leave a puckering depression of the hernial area than the ordinary method of tying.

As to the value of the different methods devised, we all remember the paper read a few years ago by Bull of New York, before the Surgical Asscciation in which he exposed the claims of permanency made for the different operations of hernia, and showed that forty per cent recurred. Recent reports have been received from one or two operators, and no one of them claims to have got permanent results unless there has been no recurrence inside of three years. These cases of Dr. Shands may be all right at the end of that time, but I do not think he should claim permanent results until that time has elapsed. I think that the description which he gives of this operation will apply to some cases, but those who have operated on some other varieties will find that it is practically impossible in many instances to follow the description there given, dividing the external oblique only from the internal to the external ring. The operation of exposing the hernial area should cover the external oblique not only from the external to the internal ring, but some distance beyond. Halstead begins his incision above the anterior superior spine of the ileum, and even that is not too much. A four-inch incision is inadequate in the majority of cases. I do not understand how it is possible to suture the conjoined tendon to Poupart's ligament and then to suture another layer of muscle so as to leave the cord beneath the tendon of the external oblique. There is nothing to be gained by trying to separate the abdominal wall into two layers at that point. Halstead's operation gives a strong cicatrix, but Macewen's stitch gives additional strength. The difficulty of obliterating the depression on the inner surface of tne abdominal wall which leads to a return of the hernia is a great one, and while the transplanting of the cord does much it does not entirely destroy it, and that is the advantage which Halstead's operation has. He practically makes an abdominal section, and separating the cord and then allowing it to drop into the abdominal cavity he has results which cannot be got by any other method. I have been operating since 1887, and I used Macewen's method at first, and I had some failures by it. Up to this year I have operated over 100 times, but I have not followed up my cases. I operated the day before yesterday on a case in which I adopted the method I have just described, but it was impossible to do the operation by the short incision. I have never thought it safe to report my cases as successful, except those which had been operated on for five or six years without a recurrence.

I do not keep my patients in bed six months as Macewen recommends, nor do I let them up in eight or ten days, but I keep them in bed three weeks or a month, for the point of union being cicatricial is bound to yield to some extent, and until the cicatrix becomes more highly organized (and this cannot be accomplished in ten days) a recurrence is likely to result. The operation is a comparatively safe one and the mortality is practically nil, and when patients come to me who do not get relief from a truss I do not hesitate to advise the operation. I do not think the operation should be performed on children as a rule, except when the hernia is congenital, because the majority of cases will get well by wearing a truss. I have never been able to operate as fast as Coley—in fifteen minutes—nor do I think it desirable to do so, for the radical cure of hernia is one which requires much care and attention to details.

Dr. J. Ford Thompson said: It is only a few years ago when we heard of nothing but Macewen's and McBurney's operations, the latter being almost exclusively done in this country and with excellent results. Kocher's operation is also done a great deal at the present time. One of our most distinguished surgeons in this country, after performing the operation of Kocher, expressed the opinion that if that did not cure a hernia of any size he did not know what would. In Paris the operation of Lucas-Championniere does not differ materially from that of Bussini, and really Bussini deserves all the credit for the modern operation as now performed. All the modifications, even that of Halstead, are based on Bussini's method, but the modification is useful in some cases. In the last few years, since I have been performing this operation, I have never seen a relapse. In bad cases, in which the ring is very large, I believe that Halstead's modification is really an improvement on Bussini's operation. The last case I operated on a short time ago was an exceedingly bad one. The scrotum was as large as a head and it appeared as if you could get your fist through the inguinal ring. I closed everything in the ring, and really performed Halstead's operatien. The patient has resumed his usual occupation, and when I examined him a short time ago everything seemed as solid as a wall. I have operated on children as young as one or two years. While the operation is more difficult for the reason that the handling of the cord and its separation from the surrounding parts requires more time, the results are better, and I have never seen a recurrence in a child. In children of two or three years or younger if the protrusion cannot be retained by a truss I have no hesitation in advising an operation. I believe that you can tie off the sac sufficiently high up to efface that little pucker that is natural at the internal ring. I never take the trouble to introduce my finger, in fact we cannot do it with children and there is no necessity for it, and I have found in my practice that it is well to have the sac distended so as to know that it is reducible. It is an advantage, and makes the operation much easier when the sac is felt, for it can then be separated from the surrounding parts and its contents reduced. If you loosen the attachments around the internal ring you can efface this fossa entirely, simply by ligating the sac. Halstead's method of making everything solid on one side is to make assurance doubly sure. I transfix the sac and ligate with chromatized catgut and in taking the sutures I use Macewen's mattress stitch. It is exceedingly important to freshen every bit of tissue which requires it. Poupart's ligament is simply a cord, and unless some portion of it is dissected off to make a fresh wound I think we leave a weak spot in the operation. In two very bad cases in which I performed Halstead's operation no bad results followed the placing of the cord under the integument. The materials used for closing the canal are various, but now kangaroo tendon is often used and some surgeons think they get better results from it than before. I have used silk, but the objection to it is that if the wound does not heal by first intention the silk becomes infected and remains a source of infection until removed by another operation. I have been using silver wire, and especially for the first row of sutures, and there is no evidence that they have given rise to irritation. Halstead employs wire sutures in preference to others. If you get a good grasp of the tissues it holds them much closer and for a longer time, and they become encysted and give rise to no irritation. He also used silk worm gut and these became encysted without the slightest irritation.

Dr. Shands, in reply to Dr. Kerr's statement that he did not see how the conjoined tendon could be included in the last sutures of the first layer of deep sutures, explained that if the aponeurosis of the ext. oblique muscle was well dissected back, there would be no trouble in catching some of the fibres of the tendon. It is not possible to include the whole tendon.

In the second row of sutures the edges were brought together so as to get the whole conjoined tendon. In regard to the length of the incision no rule could be laid down for the operation, and the introduction of his finger was for the purpose of determining this. Even in children it was possible to feel the internal ring. In the old man whom he had operated upon the incision was about six inches. In regard to keeping the patient in bed a long time, in the hospital for ruptured and crippled in New York they never thought of keeping a child in bed more than two weeks, but they never turned them loose at that time. A pad was applied, retained by a figure of eight bandage, and with that precaution he thought there was no danger in letting a patient out of bed in ten days. As for operating on children there could be no doubt that a good many get well without an operation—about eighty per cent according to Bull—but in the case of the child that he presented he had made him wear a truss for eighteen months, and while this kept the hernia in place it would come down whenever the truss was removed.

THE RACIAL AND GEOGRAPHIC DISTRIBUTION OF TRACHOMA IN THE UNITED STATES.

By Swan M. Burnett, M. D., Ph. D.

Dr. Burnett gave a short account of the history of the trachoma question particularly in recent years, and pointed out the growing belief that trachoma was not a mere local and contagious disease, but the manifestation of a dyscrasia. In 1876 he had assumed this position in a paper read before the meeting of the International Oph. Congress in New York. His studies and observations since that time had all tended to conform that opinion. The etiology and pathology of trachoma have excited a wide interest because of the destructive nature of the disease, it standing next to ophthalmia neonatorum, probably, as a cause of blindness. The difficulties most in the way of anything like an accurate study of the disease, has been the want of a generally accepted opinion as to what the affection really is; a chart marked differential diagnosis is lacking. Until recently it was not uncommon to class all chronic forms of conjunctivitis, especially where there was a granular condition of the conjunctiva as trachoma. We now know, however, that this is not so. Egyptian ophthalmia comprehends, without question, a number of different conjunctival diseases, trachoma being only one of them. Without following up the steps, by which opinion has gradually enlightened itself, it may be stated in general terms that now it is the commonly accepted belief that *trachoma is a chronic affection of the conjunctiva, characterized by exacerbations and remissions, due to successive deposits of a foreign material in the conjunctiva, the disappearance of which is marked by a cicatricial contraction of the tissue in which it is embedded.* All "granular lids" are not trachoma, and the confounding of different pathological states, under apparently similar clinical appearances, has held back our knowledge of the nature of trachoma during all these years. This differentiation between "follicular conjunctivitis" and "trachoma" has led to doubts which bid fair to become certainties, that trachoma is not an essentially contagious disease which it was formally held to be and that it is not a mere local affection, but only the local manifestation of some generally operating cause. One of the most powerful arguments to this end are the facts that some races are more severely affected with the disease than others, one race in this country, at least, having an almost complete immunity, and that climate or altitude certainly exercise a modifying influence. I called attention to the fact for the first time, twenty years ago that the negro in this country is almost completely immune against trachoma. The experience of observers throughout the United States has since confirmed this. It is well known that the Irish and the Polish Jews are most severely afflicted with the disease. If, therefore, there are some races which are relatively immune and some which are peculiarly liable to the disease, there must be some general operating influence or predisposition at work, aside from any purely local cause. It is an important fact that of all those diseases of the eye which have been considered contagious there has been found no distinctive microbe for trachoma.

At the International Medical Congress at Berlin in 1890 papers were read by Dr. Chibret of France and myself on the question of racial influence on the distribution and development of trachoma. As a result of these papers and the discussion thereon, an interest in the subject was created which resulted in the appointment, by the French Society of Ophthalmology, of a committee to report at a meeting of that body in May, 1895, with Dr. Chibret as chairman. Dr. Chibret asked me to furnish a report from the United States and it is a summary of this that is now offered.

Letters were addressed to sixteen gentlemen of known knowledge and experience in different portions of the United States, asking information as to the appearance of the disease among them, whether they regarded the disease as directly contagious; as to the influence of race in the frequency and severity of the disease; and as to the influence of altitude upon the appearance or development. To these were received thirteen replies, representing all sections of the country, viz: from Dr. Andrews of New York; Dr. Ayres of Cincinnati, Ohio: Dr. Burns of New Orleans; Dr. Callan of New York; Dr. Eaton of Portland, Oregon; Dr. Holt of Portland, Me.; Dr. Phillips of Savannah, Ga.; Dr. Randolph of Baltimore, Md.; Dr. Ray of Louisville, Ky.; Dr. Rivers of Denver, Colo.; Dr. Savage of Nashville, Tenn.; Dr. Southard of San Francisco; Dr. White of Richmond, Va.

Dr. Burnett then read an analysis of these letters, which will be published elsewhere, showing that so far as the United States is concerned the negro is practically exempt from trachoma, that there is much ground for believing that true trachoma is not a contagious disease and that altitude and latitude have not a marked, though, unquestionably some influence on the affection. It was also revealed that outside of the Polish Jews and Italians in this country, probably the most pernicious forms of trachoma are met with in the mountains of West Viginia and the country districts in the south-eastern parts of Kentucky, and among a population as purely American as we have. The native American Indian also suffers from trachoma. The author also states that the recent successful methods of treating trachoma by "expressing" the morbid material with forceps, roller-forceps, etc., were in strict keeping with these ideas of the pathology of the disease.

DISCUSSION.

Dr. Anton Coe: The paper has been of considerable interest to me especially as I have seen a number of cases, and have seen several in the negro race. I have seen two cases of trachoma among colored people in Washington and only two among the large number of cases seen by me. I think it remarkable that there is this broad difference in the races.

Dr. Geo. M. Kober: I would like to ask Dr. Burnett whether he has found in his experience that cases of trachoma have been preceded by atrophic rhinitis. I can recall a family where I operated on the mother for entropian and not long afterwards the daughter became affected with trachoma, both having previously suffered from atrophic rhinitis. The daughter's child developed a case of nasal catarrh when two years old, and I apprehend that sooner or later the little fellow will also develop trachoma.

Dr. E. Oliver Belt: In a period of three years at the Presbyterian Eye and Ear Hospital I had a very good opportunity of observing the geographic distribution of trachoma. We treated between 8,000 and 9,000 patients a year, and they came from every state between Pennsylvania and Texas, and I was impressed with the large number of cases of trachoma from West Virginia and North Carolina. There were very few from Maryland, South Carolina, Georgia or Alabama; a great many cases in Baltimore were among the Poles, Jews and Hungarians. Here in this city I have seen very few cases of the disease. As to its occurrence in the negro I have seen a few cases, which appeared to be trachoma, being in some quite marked. They had the characteristic pannus which is found in bad cases, but they were cured in a week or ten days, under the yellow oxide of mercury ointment, which will not cure true trachoma, so I suppose it was a mistaken diagnosis. Dr. Burnett is probably familiar with the case cited by Fuchs and also Morris and Olive with reference to an epidemic of trachoma on a French slave ship. There were 129 negroes aboard, and before the end of the voyage thirty-nine out of the 120 had lost both eyes while a number of others had lost one eye.

Dr. C. R. Dufour said: In a service of a considerable number of years at the Central Dispensary and also at the Eastern Dispensary of this city, in which there are a great number of negroes treated I have seen a number of cases in this race which at first sight appeared to be trachoma, with the sago grain deposit appearing on the conjunctiva, and in several cases with a typical pannus; but they yielded to the yellow oxide of mercury or some astringent application and the eye cleared up nicely, leaving no pannus, nor the usual results of trachoma. Several years ago during a hunting trip to the Lost River Valley of Virginia I saw two or three cases of trachoma. The valley is only twenty-five miles long and one-half mile wide and the nearest railway station is twenty-eight miles, and it is almost impossible to get there except on horse back. Yet in those mountains I saw these two or three cases of genuine trachoma. It is hard to say of what nationality these people were, but I do not think they were pure American stock. I think that the reported cases of trachoma in the negro, if they were properly diagnosticated, would prove to be a papillary conjunctivitis, which causes no pannus, nor the ultimate effect of trachoma, viz: entropion. In New York and the larger cities they have a great amount of trachoma among the foreign element—especially the Jews, etc., and every trachoma patient carries a stick of blue stone in his or her pocket and goes to the hospital to have it applied. The squeezing operation with subsequent application of solution of bi-chloride of mercury seems to yield the best results in the way of treatment.

Dr. O. A. M. McKimmie said that nitrate of silver and sulphate of copper would apparently cure trachoma in six weeks, but if it was allowed to go on it would lead to pannus and opacity of the cornea.

Dr. Burnett said, in closing the discussion: In reply to Dr. Kober's question I would say that I have not noticed the condition he mentions, but it is a very pertinent question, for if there is an affection of the mucous membrane of the conjunctiva it is probable that there is a similar inflammation of the rest of the upper air passages. In regard to the incident mentioned by Fuchs, I had it in mind but I do not credit the diagnosis. I do not believe a pure trachoma could render thirty-nine persons blind in a few weeks; trachoma does not act so rapidly for it is essentially a chronic disease. Where the greatest possible care has been taken in diagnosis trachoma has been excluded in the negro, and we do not find that the negro has entropion, and that is the crucial test, for if they do not have cicatricial contraction of the mucous membrane they do not have trachoma. VanMuligan says that in Constantinople they have a great number of cases of trachoma in the negro. But it must be remembered that Africa is a large place, inhabited by different races of people, and the people of one part might have the disease; but I am speaking of the negroes of this country who came from the southern part of Africa I believe, and were first landed on the James river. We cannot say that Africa is inhabited by one class of people any more than Europe is, and they are no more like each other than the Germans are like the Italians. But here is a class of people living among us, under the same conditions as the Irish, Jews, etc., who do not have trachoma. Trachoma is the expression of a dyscrasia as I said twenty years ago, and I have no reason to retract that statement. Even modern therapeutics teaches it, for the treatment of trachoma most relied upon is that of expression or removal of the diseased conditions from the conjunctiva.

MEETING OF MAY 6, 1896. Dr. S. C. Busey, President, in the Chair.

TREATMENT OF ALCOHOLISM AND THE DRINK HABIT.

FROM REPORTS OF ARMY MEDICAL OFFICERS RECEIVED AT THE SURGEON GENERAL'S OFFICE.

By C. H. Alden, M. D., Assistant Surgeon General, U. S. Army.

I have received so much pleasure and profit from my attendance upon the meeting of this Society, of which you have kindly made me a member by invitation, that when called upon by your Corresponding Secretary for a paper, I was very glad to respond, but having nothing of my own to offer, I have by consent of the Surgeon General grouped together and will read abstracts from reports of several medical officers of the Army, on the treatment of alcoholism and the drink habit.

It seems to me that this subject has scarcely received the attention at the hands of the profession generally, that it deserves. It has been too much left in the hands of charlatans and proprietors of Keeley cures. There is no more pitiable object physically and mentally than an alcoholic wreck, and surely when such a case is met with in general practice, something better can be done than to call him a drunkard and send him to an asylum or turn him over to the hands of secret remedy men. There are undoubtedly many cases which cannot be successfully treated except by taking the patient away from his surroundings and putting him under restraint, temporarily, but are there not many other cases occurring in the experience of the family physician which call for treatment by the regular attendant and which can, especially when the patient himself gives his cooperation, be successfully managed at the patient's home? I think, therefore, that efforts, such as those of the writers of the reports that I shall read, to elevate this subject from the region of quackery and take it out of the hands of the charlatan are commendable. I do not claim for these reports any special novelty, yet they contain suggestions that may be of value.

The first report is by Assistant Surgeon T. S. Bratton, a recent graduate of the Army Medical School, now stationed at Fort Niobrara, Neb., which reads as follows:

"Post Hospital, Fort Niobrara, Nebr.
March 24, 1896.
"To the Surgeon General, U. S. A.,
Washington, D. C.

"Sir: I have the honor to report the results of the treatment of fifty-two cases of alcoholism by the hypodermic injections of strychnine and atropine. As the action of these remedies in alcoholism is quite well known to the profession, it is not deemed necessary to dwell on the "modus operandi". To ascertain fully the antidotal effects of these drugs nothing was given, as apomorphine and whiskey, to create nausea and disgust for the taste of whiskey; but on the contrary the stomach was quieted and brought to its normal condition as soon as possible. Each patient on entering the hospital was given 0.3 calomel and 0.6 of bicarbonate of soda, as a routine, to clean out the alimentary canal. If nausea existed it was relieved by 1 c.c. each of tincture capsicum and spirits menth. pip., at a dose and repeated if necessary every hour or two. Hot milk and lime water in small quantities frequently repeated were used also in these cases of irritable stomach with the best results.

"As soon as the calomel acted the injections of strychnine and atropine were begun. The usual dose was strychnine sulphate 0.001 (grs. 1-60) atropine sulphate 0.0005 (grs. 1-120.) The patient was kept in a condition in which there was dryness of the throat, and slight dimness of vision. This of course required an increase or decrease of the dose according to the susceptibility of each individual. I found some could stand larger doses while others required less. The strychnine was increased or decreased in the same proportion (1-60 gr. of strychnine to 1-120 gr. of atropine) and it did not produce the first symptoms of poisoning though some very large doses were given. These injections were continued three weeks, and at the end of that time each patient was given a bottle of elixir of iron, quinine and strychnine, enough to last a week, 3.7 c.c. three times a day, and sent to duty. The first week in the hospital they were all given 3.7 c.c. of tinct. gentian comp. to increase their appetites. When they were able they were encouraged to take lots of exercise in the hospital grounds. The whole object in view was to build up their nervous systems.

"Many of the cases were voluntary. Some were given a choice, by their company commaders, of either taking the treatment or having charges preferred against them that would cause their discharge for drunkenness. From the latter class almost all the relapses occurred.

"In forming an opinion as to the merits or demerits of the treatment these facts should be borne in mind. (Signed) T. S. Bratton, First Lieut. and Asst. Surgeon, U. S. A."

The report is accompanied by a tabular list giving the particulars in regard to these cases, showing how long each patient had been drinking before treatment was commenced, when they were discharged from treatment, their history since, so far as sobriety is concerned, and the cases which relapsed. Treatment, it was stated, lasted three weeks. He reports fifty-two cases, but of these some of them had been discharged from treatment so recently that results in their cases could not be fairly considered. Excluding, therefore, nine cases in which they have been discharged from treatment two months or less, would leave forty-three cases for consideration. These patients have been drinking, I see, from seven to twenty-six years. Of these seven have relapsed.

The doctor accompanies his report with letters from the officers commanding companies stationed at his post, and all, without a single exception, speak in the highest terms of the results of the doctor's treatment, in restoring men who have been chronic drunkards to the position of good soldiers; in some cases their reformation has been followed by promotion to non-commissioned officers. Several speak of the point made by the doctor in his report, that the cases of relapse were almost all those who had been compelled by their company commanders to take the treatment and who did not do it willingly. The cooperation of the patient therefore seems to be an important element in its success.

The next report is by Assistant Surgeon E. L. Munson, also one of the younger officers of the medical corps, stationed at Fort Assinniboine, Montana. He reports but a single case, but one worth quoting, especially as his treatment seems to have been an imitation of that which we understand has been adopted by some of those who keep secret their methods. We cannot deny a certain measure of success to the men who have taken this unworthy method of treating the drink habit, and if their successful methods can be carried out openly and upon a rational basis, it would seem to be good practice.

Report of a case of chronic alcoholism treated empirically, with apparent cure. By Edward L. Munson, M. A., M. D., First Lieut. and Asst. Surgeon, U. S. A.

Sergeant P. C. has always been considered by his superior officers as an able, trustworthy and painstaking man when sober, but for the past ten or twelve years he has been in the habit of indulging in a debauch at intervals of three to six weeks, these debauches lasting days or even weeks—thus greatly impairing his efficiency and reliability.

He was an irregular rather than a steady drinker, was fully aware of the evils incident to his habits, but, while anxious for reform, appreciated that this could never be accomplished by his own unaided efforts. He had on several occasions received sedative treatment from me during the late winter and spring of 1894–'95, was in the hospital for alcoholism during April, 1895, and finally, on May 9, 1895, was placed in the hospital and a treatment outlined which in nine days resulted in cure. He entered the hospital after a debauch of a week's duration, unable to converse intelligently, breath foul, tongue coated, and tongue and extremities markedly tremulous. There was considerable gastric irritation with constipation, and a cathartic of magnesium sulphate, with black coffee and strong beef tea, was at once given. A hypodermic injection, consisting of 0.031 of a grain of sulphate of strychnine, 0.007 of a grain of sulphate of atropine, and 0.123 of a grain of sulphate of morphine, was ordered to be given three times daily, and at these times the patient was allowed to drink as much whiskey or brandy as he desired, which was considerable during the first thirty-six hours of treatment.

Immediately following the administration of the alcoholic, the hydro-chlorate of apomorphine was given hypodermically, beginning with a dose of 0.062 of a grain and gradually increasing to 0.092 of a grain, the intention being to produce a gradually increasing nausea, which would finally become so great as to result in actual vomiting. The patient was repeatedly impressed with the idea that the medicines administered were incompatible with alcohol, and that their continued use would result in an intolerance by the system to alcoholics.

All craving for liquors disappeared at the end of the second day; and on the third day whisky had already become extremely distasteful, but was ordered continued in doses of thirty to forty cubic centimetres, as before.

On the fourth day the atropine and morphine were discontinued, and the dose of strychnine was increased to 0.046 of a grain, which appeared to be about the limit of tolerance, and this treatment continued for three days. On the seventh, eighth and ninth days the whisky was omitted once daily, and at these times a hypodermic injection of distilled water was substituted for the apomorphine, the previous conviction that the nausea and vomiting previously experienced were due to the antagonism between the drugs and alcohol being thus strengthened. At the end of nine days the above described treatment was stopped, a simple tonic of nux vomica, cinchona and gentian was ordered to be taken for a fortnight, and the patient was discharged from the hospital. At that time the patient was nauseated at the thought, sight or smell of whisky, and this condition has continued up to the present time—a matter of nine months. Since this treatment, according to his own testimony and that of his superiors, he has not touched a drop of liquor of any kind; his former habits and inclinations appear to be broken off and the cure to be complete.

The cure is, of course, due to suggestion and the association of ideas, combined with whatever tonic and anti-alcoholic properties may be possessed by strychnine. The method here employed, although empirical, has certainly brought about an unexpectedly successful result in an especially unpromising case, and it would seem as if this method, in selected cases, were worthy of a more extended trial.

The third report I shall read is one that was published several years ago in the "Medical News", by Dr. George E. Bushnell, Assistant Surgeon, U. S. Army, then stationed at Fort McKinney, Wyoming, and is entitled "The Treatment of Chronic Alcoholism by Hypnotic Suggestion".

It may be stated that all treatments of the alcoholic habit, even those of the writers of the reports I have already read, have depended more or less upon the imagination and the influence over the mind for their success, but in this report hypnotic suggestion is alone relied upon as the therapeutic agent.

I happen to know Dr. Bushnell, very intimately, and know him to be one of the most modest and conservative men possible. He worked over this subject of the treatment of chronic alcoholism by hypnotic suggestion for several years before venturing to publish his views.

I shall abbreviate his report, as it is somewhat longer than there is time for me to read in full, leaving out the detailed reports of cases which he gives. You will see that the doctor does not make any extravagant claims for the success of this treatment, but simply reports the facts for the consideration of the profession. What he says is sufficient to show, it seems to me, that there is a certain power in hypnotism as applied to treatment of the drink habit which can in selected cases be relied upon with success.

Abstract of Dr. Bushnell's report:

The treatment of chronic alcoholism has of late become a matter of especial interest to the medical profession of this country, in view of the popularity of various secret "cures" for that condition. No unprejudiced observer can deny that these methods of treatment have cured some drunkards of their addiction to liquor, for periods of some years at least

Although such so-called "specific" treatments have been repeatedly denounced by the medical press, it is a fact that many physicians send patients to the institutions in which such treatment is given, or have adopted or attempted to imitate their medicines. It appears to be generally admitted that strychnine and atropine are the active drugs in these secret compounds, and we may well inquire whether the success of such treatment is or is not due to these alkaloids. During the past three years I have experimented with hypnotic suggestion in the treatment of chronic alcoholism and have obtained results practically identical with those reached by these methods, but in the great majority of cases in less time and without giving a drop of medicine of any kind. It is, therefore, a fair inference that in the methods of "specific" cure, the psychic effect produced by the frequently-repeated hypodermic injections, by the symptoms arising from physiologic doses of powerful alkaloids, and by the expectant attention of the hopeful patient, is of more importance than the character of the drugs employed. It is true that the hypodermic administration of the nitrate of strychnin was recommended by Russian physicians in the treatment of alcoholism before Keeley became known to fame, yet it is to be noted that Dr. Korona, of Tiflis, who has had a large experience with this method, raises the question whether its effect may not be largely due to suggestion. This question can only be answered by the experiment, which has never been tried so far as I know, of treating an alcoholic subject with hypodermic injections of strychnin without allowing him to suspect that the object is the cure of his appetite for liquor. But even if strychnin alone or in combination be granted to exert a specific influence upon the liquor-habit, as the tendency of alcohol is to produce fatty degeneration, the use of so powerful a cardiac stimulant as strychnin is not without danger of causing the death of the patient from over-excitation of a fatty heart. This fact is recognized in the Keeley institutes. A careful examination is made of the heart of all applicants, and those are refused treatment in whom there is any reason to suspect the existence of this degeneration, thus excluding a class which most urgently needs deliverance from the liquor habit.

The hypnotic treatment of alcoholism appears to be little known in this country. I have been obliged to work without much assistance from the literature on the subject, which is for the most part not easily accessible, and the views which I shall present are almost wholly the result of my own experience.

(To be continued.)

THE NATIONAL

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THE EDITOR'S TABLE

Pure Milk. Recently we have been given a bottle of "sterilized milk", prepared at some farm, with a request for an opinion upon its purity, although we know absolutely nothing about the detail of its preparation. We might know everything about it, and yet we could not give it our approval. We believe that the only place in which milk should be prepared in this manner is at home. Each family should have its own sterilizer, and some competent person should have charge of the process. The health officer of New York city has recently declared that the death rate from diarrhœal diseases among children has been reduced nearly one half within four years, and he attributes a large part of it to the more general use of sterilized milk. Some recent experiments in Massachusetts show that when calves are fed on milk from tuberculous cows they become tuberculous also, even when there is not a trace of disease on the udders. Again, some recent authorities have declared that the cases of malnutrition following the use of sterilized milk have a deeper seated cause than anything relating to the food supply. In other words, the very latest concensus of opinion appears to be that sterilization (or Pasteurization) of milk prevents a large per centage of intestinal disturbances of early life, removes any danger from tuberculous milk, and does not in any way injuriously affect the health of the child.

Questions for Examination for Police Surgeons. Our local readers will certainly be interested in the following questions for the examination of applicants for the posisition of surgeon of the police and fire departments of the District of Columbia. The examination was held July 14th, at which time the following rules were anouced:

1. Examination will be in anatomy, practice, surgery, materia medica, therapeutics, toxicology and the practical duties of a police surgeon.

2. Examination will begin at one o'clock, p. m., continuing until six, one hour being given to each branch.

3. Candidates to mark their papers by numbers or mottos, and to enclose this number or motto with their names, in a separate envelope.

4. No candidate will be permitted to leave the room during the examination; neither will he be allowed to communicate during that time with his fellow candidates or outside persons, either verbally or by notes or signs.

5. No visitors will be allowed in the room during the examination.

6. Each candidate will affix to the end of his paper, his statement, upon honor, that he has neither received nor given information on any of the subjects under examination, during the examination.

Questions:

MATERIA MEDICA.

1. Name three preparations of iron, giving doses and some of their therapeutic uses.

2. Give some of the therapeutic uses of arsenic. What is the best chemical antidote for arsenical poisoning, and how is it prepared?

3. Give the symptoms and treatment of opium poisoning?

4. To what classes of drugs do digitatis, straphanthus, aconite, mercury, lead, silver, cantharides and aloes belong?

5. Give the physiological action of oleum tiglii, and name some of its therapeutic uses.

6. Write an "℞" and state for what you are giving it.

SURGERY.

1. Give the commonest symptom in fracture at the base of the skull, especially in the middle fossa, and reason why (this injury still existing) said symptom may not be present.

2. What is the generally accepted rule in surgical treatment of gun-shot (bullet) wounds in the stomach?

3. Describe the operation for ligation of the radial artery, in wounds of palm of hand, giving surface and muscular guides, length and position of incision, and collateral circulation.

4. In case both radial and ulnar arteries are ligated simultaneously, in what way is the collateral circulation carried on?

5. Give the names of the different methods of artificial respiration recognized at the present time. Which one is considered as being most generally applicable? Are you acquainted with the "Fell method of forced respiration"? If so, describe wherein it differs from the old-fashioned mode of artificial respiration.

6. Describe the general symptoms of surgical shock from injury, condition of skin, pulse, respiration, body-temperature, etc. Give your method of treatment to produce reaction as far as possible, in cases where an immediate operation is not indicated.

PRACTICE.

1. Differentiate between croupous pneumonia and pleurisy.

2. Differentiate between cerebral hemorrhage and alcoholic narcosis.

3. In mitral insufficiency how is compensation established?

4. Give some methods of detecting malingerers.

5. Give etiology, symptomatology and treatment of diphtheria.

ANATOMY.

1. Describe the humerus and its articulations.

2. Describe the brachial artery and name its immediate branches.

3. From what is the common carotid artery on each side given off?

4. Locate and describe the cæcum.

5. How many coatings have the small intestines? Name them.

GENERAL QUESTIONS.

1. Give a detailed account of the method you would pursue in the physical examination of an applicant for appointment to the police force of this District.

2. Name three surgical diseases demonstrable by external inspection, any one of which would cause you to reject the applicant, and explain why such disease renders him unfit for such service.

3. Please supply information upon the following points:
Date of your graduation.
College from which graduated.
Number of years spent in active practice, including hospital service, if any.
Medical societies of which you are a member, and hospital with which you may be connected at present.

Easy Fishing. Some of our exchanges for July are still calling the attention of their fellow publishers and editorial sojourners to the utter worthlessness of any bills which they may have against the Thompson Laboratory Co., of Washington, D. C. They had better remain quiet over such matters. This company sent out orders for full page advertisements and some journals were so ready to take anything which came along in the advertising line that not a single inquiry was made concerning the financial standing of the Company or the value of the product advertised. The advertisement itself was enough to keep it out of good journalism, while any inquiry would have satisfied the publishers on the financial question. Talk about trout jumping at a fly, it is not a circumstance to the way some publishers grab a hook baited with an ad.

Location of the Journal. As a result of the ballot cast in the permanent location of The Journal, Chicago receives 2,128 and Washington 810. There was a scattering vote which brings up the total number of votes cast to 3,061, therefore it does not look as at all probable that we shall have Dr. Hamilton with us in the near future.

BOOK REVIEWS.

MANUAL OF ANATOMY. By Irving S. Haynes, P. H. B., M. D., Professor and Demonstrator of Anatomy in the Medical Department of the New York University, etc: 134 half-tone illustrations; 42 diagrams: 680 pages. Price $2.50 net. W. B. Saunders, Phila. 1896.

It can hardly be expected that an anatomy will show many new facts. Therefore we look for some special reason why a new work on this subject should be presented. We have it here in this volume in the way of illustrations. In the first place they are all original, and, in the next place, they are from photographs of the author's own dissection. Here then we have something which sets forth each part as recorded by the sensitive plate rather than by the pencil of the artist. No "personal equation" here. Things are put on record precisely as they exist. It is surprising what penetration some of these illustrations show. We would especially call attention to the chapter on the brain. The illustrations are beautiful and surpass anything in this line we have ever seen. We have only to look at them to long again for an opportunity of practical demonstration. Attention is also called to the index: it is unusually complete, and will be of great value to the student.

MANUAL OF OBSTETRICS. By W. A. Newman Dorland, A. M., M. D., Assistant demonstrator of Obstetrics of the University of Penna., etc., 163 illustrations. 6 full page plates. 760 pages. Price $2.50 net. W. B. Saunders, Phila. 1896.

This volume is divided into two parts, the first being devoted to physiological and the last to pathological obstetrics. About one third of the volume is devoted o normal pregnancy and labor. The remaining portion is especially valuable because of the recent rapid strides in our knowledge of the pathology of many morbid states. Take for instance such subjects as puerperal sepsis, puerperal eclampsia, contracted pelvis, extrauterine pregnancy; in all of these, great progress has been mace within recent years. The pathology of the new-born is also fully presented. In discussing craniotomy the author says that fetal life should be regarded as a contra-indication to its performance.

A word should be said for the publisher of this volume. Mr. Saunders has done a great deal toward the cheapening of the price of medical books without cheapening the quality of work. The volume here reviewed as coming from him are good illustrations of this fact.

DIET FOR THE SICK. Contributed by Miss E. Hibbard, Principal of Nurses' Training School, Grace Hospital, Detroit, and Mrs. Emma Drant, Matron of Mich. College of Medicine Hospital, Detroit. Second edition; enlarged; limp cloth. 16mo., 100 pages; price 25 cents, postpaid. Detroit, Mich.: The Illustrated Medical Co. 1896.

In this little book there is, besides the useful formulæ for "sick dishes," foods and cooling drinks for convalescents, quite complete diet tables for use in a large number of diseases. The physician can use it to advantage in explaining his orders for suitable dishes for his patient, leaving the book with the nurse.

THE MULTUM IN PARVO REFERENCE AND DOSE BOOK. By C. Henri Leonard, M. A., M. D., Professor of the medical and surgical diseases of women, Detroit College of Medicine. Flexible leather, 143 pages, price 75 cents. Detroit, 1896: The Illustrated Medical Journal Co., publishers.

This is a recent edition of the Dose Book, of which the title page informs us some forty thousand copies have been issued. The present edition is printed on very thin paper, and is bound in red leather, round corners, so as to make it specially light and handy for the pocket. It will be found a handy pocket companion.

A TREATISE ON SURGERY. By American authors. Edited by Roswell Park, M. D., Professor of surgery and clinical surgery, Medical Department, University of Buffalo, Buffalo, N. Y. In two very handsome octavo volumes, comprising about 1600 pages, with abouf 800 engravings, largely original, and about 40 full page plates in colors and monochrome. Vol. 1, General Surgery and Surgical Pathology. Vol. 2, Special Surgery. Price per volnme, cloth, $4.50; leather, $5.50. net. Lea Brothers & Co. 1896.

Before another number of this journal reaches its readers, hundreds of medical students will be inquiring for text books for the year's work. To the advanced student we would say, examine this latest treatise on surgery. The editor is recognized as a surgeon of the highest ability and experience, and accurately acquainted with all the detail of his special subject. He has brought to his aid nearly thirty of the most eminent surgeons and teachers in America. Our space permits only to call attention to the fact that such a work is now within the reach of students and physicians. We would like to call particular attention to a number of interesting features, especially one relating to bacteriology. The illustrations are both rich and beautiful, a large number of the plates and figures being colored. We trust our readers may have the opportunity of at least examining this work, which represents surgery as it is taught in the leading medical colleges of this country.

MINOR SURGERY AND BANDAGING. By Henry R. Wharton, M. D., Demonstrator of Surgery in the University of Penna. New (3) edition. In one 12mo. volume of 594 pages, with 475 engravings, many being photographic. Cloth, $3.00. Phila., Lea Bros. & Co. 1896.

This is the third edition of Dr. Wharton's excellent manual. The text has been thoroughly revised and many new and interesting additions made. Indeed the work is something more than a manual for it gives the details of many special surgical precedures with great clearness. The minor surgery is fully treated as is the section devoted to bandaging. The large number of illustrations will make the work especially valuable to students. We certainly trust every medical student who will study surgery this winter will not neglect the opportunity of examining this excellent volume.

HEMORRHOIDS AND OTHER NON-MALIGNANT RECTAL DISEASES. Their diagnosis and treatment. By W. P. Agnew, M. D. Third edition. Pacific Press Pub. Co., San Francisco. 1896.

This is a volume of 200 pages, setting forth in plain language a few general rules for the treatment of the non-malignant rectal diseases. The author endeavors to fill a want which the general practitioner so frequently finds to exist, in that suitable instructions are not given in general text books for detailed operations on the rectum. This work tells what to expect and how to make each step in an operation. It tells the beginner how he may knowingly and intelligently engage in a rectal operation.

KEIL'S MEDICAL, PHARMACEUTICAL AND DENTAL REGISTER AND DIRECTORY. By Geo. Keil, Phila, Pa. This is a directory for Pennsylvania, New York, New Jersey, Delaware and the District of Columbia. Such directories are of great value to some physicians and to such we would commend this volume. It also contains a large amount of interesting material of general interest to the profession.

GRAY'S ANATOMY. Lea Bros. & Co. announce that they will have a revised edition of the old standard Gray's Anatomy ready for the opening of the colleges, October 1st. Eminent American Anatomists have carefully revised every page, and such changes have been made as will keep this well known volume at the very front. 135 new and handsome engravings have also been added.

THE THREE ETHICAL CODES. The Illustrated Medical Journal Co., of Detroit, Mich. has issued in a handbook the notes of the American Medical Association, The American Institute of Homeopathy, and the National Eclectic Medical Society. A copy of this will be sent for 50 cents.

Any physician wishing the services of a stenographer or typewriter for a short time each day, or for any special work, can secure competent help, at reasonable rates, by applying to the editor of this journal.

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W. W. JOHNSTON, M.D., GEO. M. KOBER, M.D., JAS. D. MORGAN, M.D.

TREATMENT OF ALCOHOLISM AND THE DRINK HABIT.

By C. H. Alden, M. D., Assistant Surgeon General, U. S. Army.

(Continued from the September number. Meeting of May 6th.)

The following in a condensed report of all the cases of chronic alcoholism which I have treated by hypnotic suggestion:

Excluding one case on account of inadequate treatment, two cases because of the death of the patients, and one because the result is not known, there remains a series of nineteen cases which may be classified as follows:

1. Remained abstinent to the present time or when last heard from, eight.

2. Relapsed and abstinent after further treatment, hypnotic or "specific", three.

3. Relapsed after passing out of reach, two.

4. Relapsed and sought no further treatment, three.

5. Relapsed and continued to drink notwithstanding additional treatment, three.

It may be fairly claimed that all of the patients were sufficiently influenced by the treatment to have become convinced that they could be cured by a continuance of it. It is, therefore, safe to assume for all of the patients of class four, which I know to be true of one, that conviviality has pleasures for them which they have found themselves unwilling to forego. The patients in class five were all non-commissioned officers who were induced by their company commanders to submit to the treatment, and, with the exception of one case in the early part of his treatment, were not themselves desirous of help. These men are restricted by their rank to a narrow circle of intimate friends, who are for the most part drinking men, and total abstinence means for them the loss of almost all social pleasure. The conspicuously bad result in their cases shows well the futility of attempting such reform without the hearty co-operation of the subject. Suggestive treatment can only be expected to remove the physical cravings for alcohol. But, unfortunately, after such cravings have disappeared many motives for the indulgence still remain, such as the influence of associates, fondness for excitement and conviviality, and the desire to forget trouble or disgrace.

In estimating the results here reported it should be borne in mind that the frontier is a most unfavorable place for the cure of alcoholism, on account of the almost universal use of alcoholic beverages by the population and the lack of innocent amusements.

I have never failed to hypnotize a patient who sought treatment for alcoholism. Of the twenty-three cases here reported, eighteen were hypnotized on the first attempt, three on the second, one on the third, and one on the fifth.

The method which I generally pursue is as follows: The patient, who is comfortably seated, is directed to fix his gaze and his attention upon some object before him. It is not necessary that this object should be bright, nor that it be placed so near as to strain the accommodation or cause marked convergence of the optic axes. In the meanwhile, standing behind the patient I stroke his forehead gently and evenly with both hands. In the great majority of cases the patient's eyes close spontaneously in from two to ten minutes. In some cases the patient is on the point of being hypnotized, but the eyes remain open and must be closed before hypnosis is induced. These cases may be recognized by the fixity of the lids. The patient does not wink, or if winking is still performed, the act is incomplete—the upper lid does not fall so as to completely cover the eyeball. A more effectual, but more disagreeable way of hypnotizing, is to sit facing the patient and look him in the eye, the patient being charged to fix his eyes steadily upon one of the eyes of the physician, which are brought within a foot or two of his own. The psychic effort upon the patient is greater than if he were looking at an inanimate object, and his attention is consequently more easily concentrated. The physician relaxes his accommodation to escape the eye-strain which would otherwise be incurred. The eye-muscles of the patient are necessarily strained by this method, but the pain and in a great measure the conjunctival injection may be removed by suggestions during the succeeding hypnosis. Verbal suggestions may advantageously be employed in connection with either of these methods. If the patient is not hypnotized in fifteen minutes it is, as a rule, best not to persist in the attempt to influence him at that sitting. The second attempt will almost always be successful. Hypnosis being induced, suggestions are given to the effect that the patient will have no craving for liquor; that it will be disagreeable to the taste and unpleasant in its effects; that sleep, appetite and digestion will be good; that nervousness will disappear, etc. It is well to suggest that there will be no nervousness, no pain in the eyes, and no headache upon awakening, also especially in the case of those who are hypnotized with difficulty that there will be no drowsiness.

The ease with which patients fall asleep increases generally at each repetition of the hypnosis within certain limits. That intoxication predisposes to hypnosis is shown, however, by the fact that a patient who has been hypnotized in two minutes while under the influence of liquor, often requires three or four times as many minutes to produce that result after he has become perfectly sober.

The treatments are repeated, if possible, every day for at least a week, after which they are given once a week for a few weeks, than once a month. The number of treatments necessarily must be determined separately for each case, as there are great differences in the individual reaction to suggestion. I have allowed the worst drunkards to continue to drink during the early part of their treatment, with the restriction that they take no more liquor than is necessary to prevent nervousness and sleeplessness. This concession saves the patient some suffering, and the effect upon his imagination is perhaps greater if he is convinced by actual trial that liquor is becoming more and more unpleasant in its taste and its effects. From three to six treatments generally suffice to remove the craving for alcoholic stimulants in those who abstain. In those who continue to drink, the effect of the treatment always manifests itself in a rapid loss of the acquired tolerance for liquor, which becomes more intoxicating and at the same time more disagreeable, until a point is reached, generally after from five to seven treatments, when it appears to the patient that a sudden change takes place in his appetite. He can often state the exact hour when "the whiskey turned on him," as he is apt to express it. This change he considers so profound and permanent that there is often difficulty in inducing him to return for what appears to him unnecessary additional treatment.

It is an interesting fact that, while it is easy to render whiskey repugnant to the senses of the patient, it appears to be impossible to accomplish this in the case of beer by any number of suggestions. The loss of tolerance and the cessation of cravings for alcohol are reached, however, with as great certainty in the one class of drinkers as in the other.

It might be expected that patients would attempt to excuse themselves in case of relapse by alleging the return of irresistible craving for liquor. This has occurred in none of my cases, except one, under circumstances already detailed. The difficulty is almost always the temptations of conviviality, unwillingness to offend by refusing "treats," and the like. In the least successful cases the first taste of alcohol reawakens the former cravings. The majority resume their old habits more gradually, and the whiskey-drinker will sometimes drink beer for a considerable period without excess. But in all cases the continued indulgence in drink leads certainly and generally speedily to drunkenness. The relapsed drunkard finds that he has no longer the ability to "carry" liquor upon which he once prided himself. If he does not recognize and respect that fact he is in danger of the deepest intoxication.

The evil effects of alcohol upon the nervous system are marked in cases that have been treated by suggestion, and delirium tremens may result from comparatively slight excess. It is perhaps unnecessary to say that this loss of tolerance of alcohol is due simply to the character of the hypnotic suggestions which have been employed. Hypnotism may be used to produce the opposite effect.

Suggestions, the efforts of which are not intended to persist, should be avoided. It is not necessary to attempt to impress the imagination of the patient by varied suggestions the purpose of which simply is to show the power of the physician over him. Nor is it necessary for the treatment of the great majority of cases that the subject be in the so-called "suggestible stage" of hypnosis. Functions which are not directly under the control of the will, such as sleep, peristalsis, the appetites—natural and artificial, pain, the organic sensations, etc., may be influenced by suggestion in any stage of hypnosis from the slightest drowsiness to the deepest sleep. Even a considerable degree of intoxication is no barrier to the success of such suggestion, as I have repeatedly observed.

Hypnotism is not necessarily exhausting to the patient, as has been claimed. On the contrary, if his nervous energy is not wasted by suggestions which produce fatigue or disgust, he feels refreshed upon awakening, as from ordinary sleep. The dangers of hypnotism, as far as they exist elsewhere than in the imagination of its opponents, are due almost always to an improper use of the method. Certainly as employed for the cure of alcoholism, there are no dangers to be feared from it which are at all comparable with those arising from a continuance in habits of intemperance."

Dr. Arthur being unavoidably absent the following extract from the report of the Surgeon General of the Army for 1895 was read by Dr. G. W. Adair, U. S. A., Washington Barracks, D. C.

"Capt. W. H. Arthur reduced the statistics of alcoholism at Vancouver Barracks by dealing with drunkenness as with acute poisoning. He reported as follows:

"The report of the Surgeon-General for the year ended June 30, 1892, mentions this post as having out of all the Army the highest rate of admission to sick report for alcoholism. The number of cases of simple acute alcoholism that appeared at sick call and during the day, when I first assumed charge of this hospital, was unusually large, and resulted in the laying down of certain rules in an effort to discourage drunkenness as far as it was in my power. No man is taken on the sick report or excused from any duty unless, in my opinion, his condition would make it actually dangerous for him to keep at work. I may say here that such cases are, in my experience very rare, and that a mistaken pity for a man suffering from the effects of a debauch is liable very often to lead a too indulgent post-surgeon to excuse him from duty when the guardhouse, and not the hospital, is the proper place for him. I am confident that this mistaken kindness has done a great deal in the past to encourage drunkenness. Each man who has reported at the hospital in any stage of simple alcoholism is treated as a case of alcoholic poisoning, taken immediately to the operating room, his stomach emptied by the use of the stomach pump, and thoroughly washed out with warm, two per cent soda solution. After this he is given a bowl of hot beef extract, with cayenne pepper, allowed an hour's rest, after which he is generally perfectly able, however unwilling, to do his duty. If the weather is severe, either very hot or very cold, it might not be safe in his depressed condition to force a man to work out of doors immediately after this procedure, but at thls post the extremes are not great, and it has in no case resulted prejudicially to the patient. Occasionally some resistance is met with, but two, or at most three, able-bodied hospital corps men and a perforated wooden gag, such as comes with the stomach pump, will, with patience and determination, overcome almost any ordinary opposition. I have found for this purpose the gum elastic stomach tube in the old-fashioned stomach-pump case, connected with Allen's surgical pump, work very satisfactorily. The ordinary soft rubber lavage tube is too easily collapsed, and is more difficult to introduce when there is resistance.

The effect of this treatment has been uniformly excellent. The stomach emptied of its irritating contents and cleansed of the thick, tenacious mucus that is always present in such cases, is much less irritable and rarely rejects the beef extract which is given immediately; the nervous symptoms improve at once, and sedatives administered by the mouth have a far more prompt and lasting effect and in almost all cases the craving for liquor is very much diminished. Of course cases may occur which are two serious for such summary treatment. I have not met with any myself, and have used the stomach pump with good effect in cases even of delirium tremens and alcoholic coma. These cases, of course, are promptly tuken into the hospital and treated as dangerously sick men. The deterrent effect of this treatment is excellent. It is, of course, not agreeable, though no one can deny that it is perfectly rational and merciful. In the past ten months but one man has been admitted to the hospital for alcoholism. There are, no doubt, other factors that enter into the production of this marked change in the post in two years, but I am confident that this method of treating alcoholism as poisoning,has been a very important, if not the principal one. I may add that in but one case has it been necessary to use this treatment on the same man more than once.

DISCUSSION.

Dr. Adair said: Among the various methods of managing the alcohol habit, I believe that hypnotic suggestion will take a prominent place. My experience is limited in its use for the alcohol habit to two clinical lessons given by Captain Bushnell of the Medical Department of the Army. I had heard through the laity of Dr. B's success with the method, and from previous acquaintance with one of his patients could testify that the cure in that case might well be called remarkable. So when chance duties brought us together at a little post in the Wind River Mountains, I solicited an exposition of his methods.

The doctor himself, was no enthusiast, and his patients were in no sense imaginative, neurotic or hysterical. He practiced upon frontiersmen—cattlemen, miners and soldiers. His first case was a member of a large cattle company whose partners came to the doctor to see if something more could not be done. The patient was universally esteemed and a valued member of the firm, but his habits were such that they would be compelled to sever business relations with him if he could not be cured. The doctor told them that he had already tried every method with which he was familiar but that he had recently read an article on hypnotism, that he had no experience with the method, but, as a last resort, he was willing to give it a trial. He made the proper suggestions and after seven daily sessions the patient could not take whiskey in his mouth without vomiting. After several months, the patient came back to solicit a modified treatment to enable him to take an occasional drink with the boys. With such a frame of mind and such social surroundings, it is clear that no cure can be permanent, as a new tolerance can be developed in time.

Dr. John E. Walsh said he had been in the Washington Asylum at the time that the Keeley cure first came into prominence, and fifteen or twenty cases were put under treatment. They were old chronic cases who took the treatment of their own free will. The treatment consisted of hypcdermatic injections of strychnia, gr. 1–60, and chloride of gold and sodium, gr. 1–20. These were given four times a day, supplemented with elixir of iron, quinine and strychnia. After this treatment had been continued for two or three weeks nearly all the patients returned to their former bad habits. Of those who did not relapse one did not want to drink and another refused to take the hypodermatic injections but took the medicine by the mouth for a very short time and remained sober for four years. From time to time those who were taking the treatment in the hospital were offered whiskey and they nearly all took it, and he thought there was very little hope for a man who would drink poor-house whiskey.

Dr. Tuckerman, of Cleveland, said that he regarded the craving in alcoholism as due to a deficient excretion of the kidneys, and the value of strychnine and the value of every other remedy, used for this purpose, rested largely in the fact that they promoted excretion from the kidneys, and as that excretion came up the nervous tension diminished. He had used atropine but did not like it, for he had had some accidents from its use. He remembered one man, to whom he gave atropine, he developed delirium from which he never recovered. He believed there was something to be said in favor of mental suggestion. His plan of treatment was to give a hypodermatic dose of strychnine with one-eighth grain of pilocarpine to start the sweat glands and the kidneys. He then gave a solution of strychnine 1–60 gr. and tr. strophanthus one minim, with directions to take that amount followed by a cupful of hot water every hour, and oftener if necessary. When the craving came on this could be taken every half hour and usually, when there was a desire to reform, the mere fact of having something to take—to tone them up—seemed to assuage the desire for alcohol. There seemed to be something in the capsicum treatment—tincture of capsicum and fluid extract of lupulin, in equal parts, a teaspoonful *pro re nata*—but he thought it was too violent for the average stomach. Altogether he had come to look upon the treatment with strychnine, pilocarpine and strophanthus as the best.

Dr. Wm. C. Woodward said there was an attempt being made to force a Keeley Institute on the District in an official form. A bill was pending in Congress to establish an asylum for inebriates, and the agent of the Keeley Institute in the District was pressing the Commissioners to enter into a contract with him to take care of such patients as might be sent him by the District authorities. The bill was sent to the Health Officer for a report; such report was made recommending that, until the treatment was fully described, the proposition be not entertained. The agent sent a reply to this, but omitted two very important particulars. He stated in a general way, that when patients were admitted, they were given two or three days of preparatory treatment, but details of such treatment were omitted. Later on he referred to the fact that the patients were given "internal treatment," and so dismissed that subject. This letter was naturally returned to the agent with a request that he supply the omissions.

EXSTROPHY OF THE BLADDER; THE CLINICAL HISTORY AND SPECIMEN OF A FATAL CASE.

By J. W. Chappell, M. D.

Ectopia vesicæ, exstrophy or extroversion of the bladder, is a congenital defect in which there is an absence of the anterior wall of the bladder, together with a corresponding defect in the lower part of the abdominal parietes and usually of the symphysis pubis, the ureters generally opening and discharging the urine directly upon the external surface. The penis is nearly always epispadiac and small, and the clitoris is divided into two parts; or there may be an absence of both penis and clitoris. In the male the deformity prevents procreation; but in the female the reproductive function is generally not impaired, and cases of parturition are on record, notwithstanding the external genitals are very imperfectly formed.

As to the manner in which the deformity is brought about, little seems to have been attempted by way of an explanation. Samuel G. Shattock's explanation is, that the cloacal invagination of the surface which normally lays open the lower end of the rectum and the lower end of the uro-genital sinus, does in these cases, by an undue extension forwards and upwards, lay open the anterior wall of the uro-genital sinus and the anterior wall of the bladder as well. Should the undue extension occur to a lesser degree, there would be epispadias; if greater ectopia vesicæ. For, although epispadias may occur without ectopia, ectopia never occurs without epispadias.

In 1805, W. H. Coates, surgeon Fifth Dragoons, reports in the Edinburgh Medical Journal, a case of exstrophy, which occurred in his practice four years before. It was a female child and one of twins. No attempt was made to remedy the defect. He says his case was similar to one reported by Dr. Baillie in 1793; that there were several cases on record, but that few were reported with sufficient accuracy. This latter statement holds good even now, for Howe, who operated in 1890, says he read over everything written by surgeons, who had operated, but received little satisfaction.

In 1851 Mr. Lloyd, of St. Bartholomew's, attempted to remedy the defect by passing a seaton from the bladder to the rectum, but the patient died of peritonitis.

In 1851 M. Jules Ronx made the first attempt to remedy the defect by plastic surgery.

In 1853 Richard, modifying Nelaton's operation for epispadias, operated by turning in a flap from below the umbilicus, with its skin surface towards the bladder, and covered this flap with skin taken from the scrotum. The operation induced peritonitis which proved fatal.

In 1858, Prof. Joseph Pancoast of Philadelphia, performed the first successful operation for exstrophy of the bladder. However, the patient died some months later from another affection.

In 1859, Dr. Daniel Aryes published an account of a successful operation, which he performed the year previous. A plastic cast of this case is in the Army Medical Museum.

Holmes employs two flaps. A flap from one side of the groin is covered by a flap from the opposite groin. The cutaneous surface of the first flap is turned towards the bladder, and the raw surfaces of the two flaps are brought together. Wood's method is similar to that of Holmes, except that he employs three flaps instead of two. The first flap is taken from above, and covered with two lateral flaps.

In 1874, Dr. John Ashurst, Jr. reports an operation for exstrophy, resulting in death in thirteen hours.

In December, 1885, Prof. Treudelenburg, of Bonn, published his first case, treated by division of the sacro-iliac synchondrosis, which permits the approximation of the pubic symphysis. Later the bladder cavity is made to dilate and resort to flaps is seldom necessary.

The writer has collected all the cases reported in this country and the British Isles since Ashurst reported his table of 38 cases in 1874. Of the twenty-seven collected, sixteen were males and eleven females. All but four were operated upon. Of the twenty-three operations, two were reported as successes; two as failures; five resulted fatally, including two who died some time after the operation; and nine were improved. In five the result was not stated. Of the three which resulted fatally, two died of purulent pyelitis and the other one of uræmia, the result of suppression of urine. Including the five, in which the result was not stated, with those improved, we have 30.4 per cent of failures. The four deaths and four failures in the thirty-eight cases, reported by Ashurst, gives 21.0 per cent of failures.

This is not a very favorable showing, and yet a careful reading of the cases reported, is sufficient to convince one that the results, as exhibited by the tables, are far too favorable. It would appear as if some operators, in applying the term successful to the results of their efforts to remedy this defect, mean simply that the patient was successful in surviving the operation.

Porter says the surgeon should continually keep in mind the main result for which he is striving, viz, a free drainage of urine; otherwise the ordinary results of obstruction will follow, which are dilatation of the ureters and destruction of the kidneys. Dr. Walter Reed, in a paper read before this Society last winter, clearly shows that pyelitis and other infective processes of the kidneys and ureters are not likely to take place unless there is some obstruction to the flow of urine. It, also, has been shown that healthy urine is not infective and does not interfere with the healing of wounds. Hence, it would seem that if an aseptic operation were performed and free drainage secured, fatal results could be avoided. It is, mainly, because the writer believes that a more thorough appreciation of the conditions will lead to better results, that he wishes to call attention to the following fatal cases including that seen by himself.

In 1877 Champney reports a case of exstrophy of the bladder, in a female child, born February 14, 1877. It took the breast well until March 7th. March 12th, at night, it had convulsions and died at noon March 13th. The post mortem was performed the day after death. Both ureters were much dilated at various points, and there was no obstruction. The pelves of both kidneys were markedly dilated, but their tissue was healthy. There was spina bifida of the last two sacral vertebræ. The same author, in an article written in 1880, calls attention to a paper by Alexander James, on "Hydronephrosis in connection with Incontinence of Urine". Dr. James reports the death of three boys, who had been subject to eneuresis. The first boy, aged eight years, had phymosis the result of an injury. He had an attack of diarrhœa followed by coma and death. The amount of urine had not been ascertained, but it was pale and of low specific gravity, 1010, containing renal cells and a trace of albumen. The autopsy showed the muscular coats of the bladder thickened, no cystitis, no stricture of the ureter or urethra, but both ureters and the pelves of both kidneys were greatly dilated and there was double hydronephrosis. The other two boys had eneuresis produced by some abnormality of the prepuce. They had similar symptoms and died in the same manner as the first boy. Dr. James says that irritation of the prepuce causes the bladder to contract frequently and violently, damming up the urine in the ureters, which results in serious obstruction, dilatation and hydronephrosis. Dilatation of the ureters and kidneys is a sign of gradual and incomplete obstruction.

Champney says this view receives remarkable confirmation from the state of the ureters in cases of exstrophy of the bladder. In exstrophy the ureters are always lengthened and dilated, and with them, the kidneys.

In 1886 Edward H. Bennett reports an operation on a female child, four years old. Before the operation the flow of the urine was *guttatim*, but after the operation it became squirting and at intervals. The child grew thinner and weaker. Vomiting set in, and later became constant, resulting in death. Post mortem showed death to be due to purulent pyelitis, brought about by chronic stricture at the orifices of the ureters. The vagina, uterus and ovaries were of normal size. In 1887 W. H. Walling reported an operation, performed by Prof.

Goodman, on a boy aged eight years. The boy rallied after the operation and the prospects for recovery were good, but in about twenty-four hours suppression set in, and in about thirty-six hours he succumbed to uræmia. The autopsy showed the right ureter normal, the left markedly dilated at its distal end, and both kidneys considerably enlarged.

January, 1895, John B. Roberts, M. D., of Philadelphia, reports a very interesting case, operated for exstrophy, in a boy aged eight years. After repeated efforts to remedy the defect the drainage was satisfactory, but the patient began to lose his appetite, vomited occasionally and died on the fifth day after the operation, apparently from exhaustion. The autopsy showed disease of the left kidney which was riddled with small abscesses. The ureter on this side was much enlarged and thickened. The pelvis and ureter were filled with pus. The right kidney and ureter appeared to be normal.

The writer first met Miss ——, in December, 1895, and although she had extroversion of the bladder, she said nothing to me in regard to the trouble at the time. She was forty-five years of age, weighed about 120 pounds, and was about five feet eight inches in height. When she was born and for a short time after, there was doubt as to the sex. Dr. Agnew, who saw her when she was about six months old, declined to operate, as he had recently lost a child on which he had operated for a similar condition. She did not walk until she was seven years old, and she did not menstruate until she was twenty. She passed a long round piece of membrane at that time, but had no pain or trouble. She was perfectly regular with her menstruation ever after; nor did she ever suffer pain or inconvenience at that time, Dr. Tiffany, of Baltimore, who saw her seven or eight years ago, made a number of apparatuses for her; but she was unable to wear any of them any length of time and soon had to abandon them entirely. When she was a baby, her aunt, who was pregnant at the time, persisted in spite of remonstrances, in coming to see her and in helping to wash and dress her. When her aunt's baby was born, it too was found to be afflicted with exstrophy of the bladder. The grandparents of these two children were first cousins; but there is no history of a similar or of any other deformity in either branch of the family. The cousin, also a female, is still living and has been operated upon; but the operation produced a stooped position, and this fact aided in prejudicing Miss ——, who was very erect, against a similiar operation upon herself.

January 1st, 1896, I was summoned in haste, to see Miss —, and upon arrival, found her suffering with a very severe pain in the right side of the abdomen, which I relieved by a hypodermic of morphia. The next day there was no tenderness, swelling or other local sign of trouble, where the pain had been; but the patient had fever, her tongue was coated, her stomach irritable and appetite impaired, and a herpes labialis, which became very severe in a few days, was developing. Five grains of the sulphate of cinchonidine, every four hours, were prescribed. On the morning of the fourth and fifth, the temperature was within two-tenths of a degree of being normal, and the fever curve, the general clinical symptoms, and the absence of localized pain were evidences in favor of malaria, the æstivo-autumnal variety, and, therefore, the sulphate of cinchonidine was continued. Dilute hydrochloric acid, five drops every three hours, was also prescribed. On the mornings of the sixth, seventh and eighth, there was a profuse perspiration followed by a collapse temperature, which reached as low as 96.4 degrees on the eighth. There were distressing symptoms accompanying this lowered temperature. The pulse was weak and breathing difficult, and resort had to be made to hypodermics of brandy and strychnine.

However, by the thirteenth, the herpes had gotten well, the tongue had nearly cleaned, the appetite had improved, and the patient was cheerful. On the fifteenth, the temperature went a little higher, 99.6 degrees, than it had done for several days, and her bowels were slightly constipated. Accordingly blue mass and quinine were given. For subsequent treatment, in addition to the cinchonidine, three grains of quinine, at bed time, was ordered, with a dose of bromide of sodium to relieve the head, if it was needed. Under this treatment the patient continued to improve until the twenty-sixth, about one o'clock, in the afternoon, when she had a severe chill, accompanying an agonizing pain in the right side of the abdomen, which seemed to extend anteriorly to the bladder and posteriorly along the course of the ureter to the kidney. A hypodermic of morphia was given, but the pain, which was neuralgic in character, though lessened, continued, and the following was ordered:

℞
Quin. Sulph. }
Mass. Ferri. Carb. } aa ℈j
Ext Bellad. gr. jss
M. Ft. Caps. No. VI.
Sig. One every 3 hours.

With difficulty, a small quantity of urine was collected and examined, but no albumen was found; nor did there seem to be any lessening of the amount of urine secreted. On the twenty-seventh, Dr. French examined the blood for malarial organisms. but found none. The same day the following, which was continued until the first of February, was ordered:

℞
Quin. Sulph. }
Mass. Ferri. Carb. } aa ʒss
M. Ft. Caps. No. X.
Sig. Take one every 4 hours.

On the twenty-eighth, the patient was chilly, her tongue was coated white, but she talked cheerfully and said she felt very well. Later in the evening menstruation began. On the twenty-ninth the temperature went below normal, after which, it fluctuated from slightly below normal, to slightly above normal, until the ninth of February. There was yet a little pain and soreness in front near the opening of the ureters. February the first there was a consultation with Dr. W. He had known the patient from her early childhood, had treated her on previous occasions, and was familiar with her constitution and condition. He said it was impossible to tell just what the trouble was, but expressed the opinion that there was some pyæmic infection complicating the case. He recommended adhesive strips to support the abdomen, and a tonic. On the ninth of February, just two weeks after the last severe attack of pain with chill, the patient had another chill, followed by a rapid rise of temperature, 103.8 degrees; but this time unaccompanied by the pain in the side. Dr. French examined the blood again, and this time found the malarial parasite, the æstivo-autumnal variety. Three grains of quinine every three hours were ordered, and the patient was better the next day, the tenth.

On the twelfth she was ordered five grains of quinine, three times a day, followed by a dose of bromide of sodium, if it were needed to relieve the head and procure sleep. The next day, when I arrived, about four o'clock in the afternoon, I found the patient stupid and hard to arouse; but her pulse was good and her temperature only 99°. There were no symptoms of paralysis, and the pupils, though slightly contracted, were of equal size. Through some misunderstanding a dose of bromide had been given every three hours, instead of only when needed, and it was thought that this might account for the stupor. The next morning there was another collapse, temperature, 96.2°, the lowest reached during the course of the fever; but when I arrived later in the day, the temperature was about normal. The patient, however, was still stupid; but slight responses and incorrect answers could be obtained by repeated efforts to arouse her. Her tongue was nearly clean, her bowels had been moved after an injection, and the nurse thought there was sufficient urine being secreted.

It should be stated here that the only way of arriving at an estimate of the amount of urine passed, was by the number of cloths satuated, and that the urine was always very pale. The writer, however, occasionally, observed the urine spurting out from the ureter to a distance of several inches, in a fine stream about the size of that from a hypodermic needle, and at intervals varying from a few seconds to a minute or more. That night, after twelve o'clock, I was summoned in haste, as the friends thought she was dying. She had another chill and her temperature had risen to 103°. She was still unconscious, very rectless and could scarcely swallow. There could be no longer any doubt that the case had assumed a grave aspect.

Dr. Pool was called, in consultation, and it was decided to give what nourishment, stimulants and water she could be made to swallow, and await developments. The patient had improved a little by the sixteenth, when there was a second consultation with Dr. W. He thought the symptoms were those of uræmia, possibly, complicated with septicemia. The following was given as being likely to meet the indications:

℞
Tinct. Digitalis ʒj
Spts. Æther. Nit. } aa ℥j
Liq. Ammonii Acetat. }
Aquæ puræ ℥v

M. Sig. Take one teaspoonful in a tablespoonful of water every hour.

On the eighteenth there was another consultation with Dr. Pool, and as the temperature had risen the previous evening to 103.6°, followed by a fall and another rise, it was decided to give hypodermic injections of the bisulphate of quinine, in five grain doses, every six hours. It was given hypodermatically because the patient was almost unable to swallow. To relieve the stupor leeches were applied over the mastoids. When I arrived the morning of the nineteenth, the friends around the patient were smiling, as they were satisfied that she was much better. Although it required a little perseverance to have her do so, she took her nourishment quite well, recognized those about her more readily, and responded to questions more satisfactorily than she had done since the stupor began. The improvement in part, at least, might be due to the fifteen or twenty grains of the bisulphate of quinine, and the nurse was directed to continue the injections, unless the temperature went below normal and remained there. Notwithstanding this treatment the temperature, early on the morning of the twentieth, was 104.5°, the highest point reached thus far in the disease. The last hypodermic of quinine was given at six o'clock, on the evening of the twentieth, but efforts to reduce the temperature were made by sponging the face, arms and upper part of the chest with cold water. For some days the pulse and respirations had varied. The former from 100 to 160 per minute, the latter from 20 to 70. But they now grew more rapid and feeble, notwithstanding hypodermics of brandy and an occasional hypodermic of strychnia or digitaline. The stupor deepened and the temperature reached 106.8°, at half past six o'clock, on :he mòrning of the twenty-first, a few seconds before the patient breathed her last.

The autopsy was made about three o'clock, in the afternoon, by Dr. Pool and the writer. The external parts presented the following appearances: There was no navel. The pubic bones were separated about three and a half inches. There was, of course, a corresponding separation of the recti muscles, at and immediately above, their insertion. The upper part of the space, occasioned by the separation of the pubic bones and recti muscles, was occupied by the posterior wall of the bladder, which in life bulged forwards, but which was now depressed. It was irregularly circular in shape, about two inches in diameter, and about one-third of its surface was covered with a red papillomatous growth. The edges of the bladder were continuous with and firmly united to the cutaneous surface covering the abdomen. A little below the bladder, and about the centre of the space left by the separated pubic bones, was a small elliptical opening, large enough to admit the end of the little finger, in which was seen a little dried menstrual blood, for it proved to be the opening into the vagina. On either side of this opening, and entirely uncovered, were two small irregular prominences, the representatives of the labia minora. No clitoris was to be seen. Over the separated pubic bones, and extending downwards and covering a part of the mucous surface below, were two prominent fleshy masses sparsely covered with pudendal hair. The internal border of these masses would have formed the labia majora had the pubic bones not been separated. The abdominal cavity was opened by an incision, extending from just above the bladder nearly to the ensiform cartilage. Just under the abdominal walls was seen the transverse colon, which apparently had been dislodged from its usual position, its centre reaching nearly to the bladder, thus forming a U shaped loop, which completely covered the small intestines. The small intestines which were undistended with gas and nearly empty, were closely packed in a pecular manner in the lower and back part of the abdominal cavity. The liver, pancreas and spleen appeared to be healthy and of normal size, possibly, the spleen was somewhat smaller. Both kidneys and ureters were in a condition of hydronephrosis and there was more or less perinephritic inflammation. The right kidney, which contained a few small calculi, was somewhat enlarged and its pelvis was dilated. The left kidney, which was very hard to find, was reduced to a mere sac, two inches or less in length and three-fourths of an inch in width, its glandular structure being entirely destroyed. Both ureters were dilated to about three times their normal size and much increased in length. They were filled with a thin, whitish, opaque fluid. The right ureter opened externally, about the middle of the bladder wall already described. The opening was barely large enough to admit a small probe. The left ureter was found to be non-patulous at its bladder termination. The median incision was now continued downwards, outwards and to the right, around the bladder and other external parts, previously described, and at the line of junction between the cutaneous and mucous surfaces, until it reached the internal border of the symphysis pubis; from this point it was carried downwards and inwards, until it reached the median line, a short distance below the opening into the vagina. The tissue along the line of this incision was firmly adherent to the symphysis pubis, and fasciculi bound it to other adjacent parts. This tough membrane which seemed to supply the defect occasioned by the separated pubic bones, evidently added much to the otherwise weakened abdominal supports. This incision fully exposed to view the internal organs of generation. The vagina was found to be of the ordinary diameter, but somewhat shallow; the uterus and fallopian tubes were normal; the ovaries showed signs of cicatricial atrophy, and in the right ovary was a recent hemorrhage, very probable menstrual.

Microscopical examination of sections from the right kidney, showed extensive chronic interstitial change, with marked involvement of the malpighian tufts, the majority of which had been converted into dense fibrous connective tissue. There was also dilatation of many of the secreting tubes, with some fatty degeneration of their epithelial lining. In other words, sections of the kidney, showed advanced chronic diffuse nephritis. The diagnosis of uræmia, as the cause of death, was evidenced by the clinical symptoms and justified by the post mortem examination. The writer, however, believes that malaria existed as a complication from the first, and that the fatal result was hastened by its effects. Yet aside from every other consideration, it seems almost incredible, that sufficient urine could have been discharged through the one small ureteral opening, found at the post mortem; and when everything is taken into consideration, the wonder is, that life was sustained so long.

DISCUSSION.

Dr. J. Ford Thompson said: The only time I ever operated for exstrophy of the bladder was at the Children's Hospital, and in that case the child contracted a contagious disease and died before the result of the operation could be seen. I think with Dr. Chappell that the operations reported as successful were only successful so far as the patients did not die, but the covering up of this organ by no means cures exstrophy of the bladder. One case he refers to was more nearly cured than any on record, and it is not shown there that the sphincter had control over micturition. Several years ago a well known surgeon came here and operated on a case which I had seen, and it was reported in the newspapers the next morning as a very successful operation, but while the operation was not fatal the condition was made much worse. The flaps on the bladder had sloughed off, and the whole lower part of the abdomen was a cicatricial mass precluding any further operation, and I declined to operate. An interesting case, which I remember, was a young girl between three or four years of age, who came to my office with her parents. She had an extroversion, which they had concealed. They asked me about the desirability of an operation, and I told them that I could cover up the bladder, and that while it would be an improvement, a cure was impossible. About a year ago this girl, who had become a young lady, went to Philadelphia and was operated on. I do not know what the immediate results of the several operations were, but she died while in the hospital as a result of the operation. Attempts have been made to devise a better operation than simply covering up the bladder, but they have been exceedingly unsatisfactory. Simply covering up the exstrophy by Wood's or Roux's operation, or some other method, is allowable, so that the patient can wear a urinal, which adds very much to her comfort. I am surprised to hear of several cases of peritonitis from the operation of covering the bladder with flaps, for this is rather a simple affair and in the majority of cases is successful, MEETING OF MAY 13, 1896. Dr. S. C. Busey, President, in the Chair.

IMPACTED EXTRA-CAPSULAR FRACTURE OF THE HIP.

By James Kerr, M. D.

The frequency of fractures of the hip in the aged, their high mortality and the unvariable disability that follows them, make them important. I wish to draw the attention of the members particularly to one variety, *the Impacted Extra-Capsular Fracture;* and although I may not be able to offer anything essentially new or entirely original, I do think the leading characters of this injury are not always made sufficiently clear by surgical writers.

That it is essentially an accident of advanced life is shown by the statistics of the specimens collected by R. W. Smith, Gordon and others. The average age in Smith's collection, sixty in number, was sixty-five. The predisposing causes of the fracture are probably senile, due to osseous changes this period of life. All extra capsular fractures are primarily impacted, and associated with injury—splitting up—of the trochanter. The mechanism of their production offers a simple explanation of their pathology. The injury being produced by force applied to the trochanter in the direction of the axis of the neck, the bone gives way at that part least capable of resisting this force, the base of the neck behind, just in front of the posterior inter-trochanteric line, and secondarily at the same point in front, and is driven into the trochanter, splitting it up into various fragments, generally two or more.

In advanced life the degree of force necessary to produce the fracture not being great owing to the senile changes, already referred to, impaction remains, but where the force is great the fragments are liable to become disengaged, as they may also be by rough and unscientific manipulation made for the purpose of eliciting crepitus. In the young or in adults, the non-impacted extra capsular fracture is always the result of great violence, and is always readily recognized from the loud and distinct character of the crepitus, felt under the hand when the trochanter is grasped.

The injury to the trochanter produces local aberrations in this process that can always be recognized, and offers, as we shall presently see, most important and distinctive signs.

The force that fractures the neck, at the narrowest part—the intra capsular—is transverse to its axis; that which produces the other variety is along the direction of the axis.

These are the facts as generally observed, but we know that extra capsular fractures have been shown to occur by falls on the feet, or on the knees, and by muscular effort, and intra capsular from falls on the trochanter. Bennett has cited a case where he claims to have demonstrated an extra capsular fracture without any injury to the trochanter. Sometimes the fracture is produced by the fall, sometimes the fall occurs as a result of the fracture, and we know that exceptions are frequent in the age at which both fractures occur. However, it is not with these exceptions we have at present to deal. We know that these injuries are prone to be followed by absorptive and other changes, that seriously prejudice conclusions, based on their pathology if examinations are made at remote periods following their receipt, and where it is extremely difficult to determine the original line of fracture; neither is it my intention to discuss the questions as to whether they are better termed intra and extra capsular, intra and extra articular, whether the extra capsular are not generally partly within and partly without the capsule; but what I am desirous of advancing for the purpose of determining more clearly, if possible, is that the extra capsular impacted fracture has special features that should always lead to its recognition and proper treatment. These are my conclusions, and I respectfully submit them to the members for discussion.

1. That the extra capsular, impacted fracture of the cervix femoris, equally with the intra capsular fracture, is an accident of advanced life. Not probably so frequent in extreme old age as the intra, but common after fifty, and in my opinion the more frequent of the two.

2. That it is associated with a history of falls on the trochanter.

3. That there is an associated injury of the trochanter. This injury produces certain local signs that can nearly always be recognized and do not belong to any other accident.

4. These signs are broadening of the trochanter and prominence of the groin along the anterior-intertrochanteric line. These signs are, as I have said, peculiar to the fracture, and are best elicited by grasping both trochanters, for the purpose of comparison, so that with the thumbs in front and the fingers behind we can appreciate the difference in their antero-posterior diameters and the prominence in the groin. The trochanter is also rotated and placed further back in the injured side.

The increased breadth of the injured trochanter is explainable by the fact, that this process is split more or less apart by the wedge like action of the base of the neck. It may be difficult to determine when there is much bruising and infiltration, but it usually presents itself sufficiently when sought for, and at any rate readily recognizable after swelling has subsided.

This alteration remains as permanent as the shortening that inevitably follows this fracture, and in thin subjects with a pair of calipers a difference of one to one and a half inches can be demonstrated between the two sides. The prominence in the groin or "lack of compressibility" as it has been described, can be felt inside the rectus and corresponds to the base of the neck, the fullness being due to the projection forwards of the anterior-intratrochanteric line.

The difficulties of making a diagnosis between intra and extra capsular fractures at times is very great and in a hip that has been the subject of chronic rheumatism, the difficulties are probably insurmountable. It has to be diagnosed fracture from dislocation: fracture of acetabulum and contusions, etc. Here the history of the accident will be the surest guide. I have nothing to add to what has already been written on the other symptoms—eversion and elevation of trochanter, as determined by Nelaton's & Bryant's test lines, these are common to several conditions of the hip—intra capsular fracture of the acetabulum, senile absorption following severe contusion, and dislocation, but in summing up the associated facts that characterize this fracture, I would emphasize the age, the direction of the force, and the alteration about the trochanter as being most important.

A word as to treatment:

Recognizing that it is always a grave accident, that it is often fatal, either directly from shock, or secondarily from affections of the respiratory or urinary organs or from bed sores, and remembering that the resulting impaction is not to be disturbed, no scientific reason can be advanced for retention apparatus. The impaction, of itself, secures the best result attainable, while the influence on the general condition of the patient cannot be otherwise than harmful.

This rule admits of modifications, especially in young subjects, where, I think, the opposite rule should be adopted, that is, disengaging the impaction and retaining the fragments in apposition as in other fractures. Occasionally extension may be admissable to control spasm, or sand bags, to secure the limb against movement, both or, indeed, any apparatus must, only, be useful until such time as the local pain in the limb has subsided and, usually, not after the second week.

The best results that I have seen have been in cases that have been least interfered with. The more movement the patient is able to give the limb, short of producing pain seemed to promote restoration of function, and protection from greater degrees of disability afterwards.

In fact the advice, laid down by Sir Ashley Cooper, that the knee should be supported by a pillow and made as comfortable as may be, the patient kept in bed until movement is no longer painful to him, say a fortnight or three weeks, and then allowed, or as I would suggest, encouraged, to get up and move about as much as he can with ease, comprehends all that is necessary. I have found application of a long hot water bag, under the upper part of the thigh to support the trochanter, a great comfort, as I also find advantage from massage and later on local protection against alterations of temperature in a joint that has become permanently crippled, and is like all such joints in old people, subject to rheumatoid pains.

THE NATIONAL

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THE EDITOR'S TABLE.

Pasteurization of Milk. We have never believed that the cases of malnutrition which have been reported to follow the use of sterilized milk have actually been due to that cause. A careful study of some of these cases and a study of the literature of others lead to the conclusion that the cause is deeper seated than that which relates to the food supply alone. However, in order to do away with this criticism, and in order to make the milk supply as pure as possible it is well to understand that late experiments have shown that the pasteurization of milk answers equally well to sterilization. Dr. Roland G. Freeman of New York has lately contributed an article to the Archives of Pediatrics, which shows very clearly that if the milk be raised to a temperature of 155 F. it is made practically sterile. Dr. Freeman says that the injurious chemical changes caused by heating milk do not begin until the boiling point is reached. On the other hand if milk be exposed for twenty minutes to a temperature of 167 F. it will show no growth of germs for at least three days, although before pasteurization it may contain as high as 100,000 germs to the cubic centimeter. This temperature of 167 F. is sufficient to destroy all the pathogenic germs which are most varied in milk, even including the tubercle, typhoid and diphtheria bacilli. But Dr. Freeman finds also that if a lower temperature be used, say 155 F. we have the milk fairly sterile. Such a temperature is sufficient to free the milk from almost all living germs, including those pathogenic bacteria most likely to cause disease through their presence in milk. Some recent experiments show that even the tubercle bacillus is destroyed at 155 F. The advantages of this low sterilization are that it causes no change in the taste of the milk, and avoids any chemical change produced by higher temperatures.

Pure Milk for Washington. This city certainly needs an officer connected with the Board of Health whose duty it shall be to inspect the entire milk supply. He should examine and report upon the condition of the stables, the number of animals, their health, the quality of the food given, the water used, and all other items which could in any way affect the source of the milk supply. If families desire to know anything about the surroundings connected with their milk supply they should be able to obtain all such information at the Health Office at any time. No one should be allowed to supply families with milk who is not willing to allow this inspector to make a thorough examination of his surroundings, even if said milk supply is outside the District of Columbia. The expense for this new officer would be but little more than the salary of the inspector, while the practical good coming from it would certainly be incalculable. No sooner would such a Dairy Inspector be appointed than there would be a general cleaning up of the dairies furnishing milk to the city. We trust such an inspector may be appointed and that he may have the power to prohibit the sale of any milk from establishments which he thinks are unsanitary.

Treatment of Consumption Near Cities.

At a recent meeting of the Massachusetts State Medical Society, Dr. V. Y. Bowditch read a paper on "The Treatment of Consumption in and near Cities." The author discusses the various remedies which have been recommended from time to time as specifics, but, alas, they have all failed. He believes that fresh air, plenty of sunlight, nutritious food, and proper exercise are the great remedies for this disease. The general condition of the patient is looked after in the usual way, tonics and remedies to regulate the bowels, regularity of meals, etc., are carefully considered. If the digestion is good, milk is given freely between meals. Dr. Bowditch says about one-third of the cases treated in his sanitarium have been "arrested". He does not know that the diseases has been positively cured, still, as it makes no further progress, and the patient appears to be in good health he feels warranted in saying that the disease is at least arrested. Such a paper is indeed most encouraging to us all, and we are stimulated to continue in this same regular line of treatment, being hardly ready as yet to accept the risk of trusting to specifics.

Suspected Diphtheria.

A report has recently been made to the British Medical Journal on the bacteriological examination of 1,000 cases of suspected diphtheria. This report says that in only 587 of the cases were the diphtheria bacilli found. It is hardly possible to believe that without this examination these 1,000 would have been treated as diphtheretic, but it is altogether probable that some of the cases in which the bacilli were found would have been passed by as slight cases of sore throat and some of those in which no bacilli were present would have been treated as cases of diphtheria. One cannot study this report without seeing further difficulties in the way of deciding the value of antitoxin by its statistics. We believe that the best test of this new treatment to-day is the general concensus of opinion by physicians of wide experience, rather than from the exhibition of tables of statistics. No test could be more reliable, and certainly nothing could result more favorably to the friends of antitoxin. It is interesting to know that this report says that the bacilli were commonly found in the throat for two or three weeks after the acute symptoms had subsided. In one case they remained for twenty-three weeks, and even at that time were virulent for guinea pigs.

Intestinal Antisepsis.

A few days ago we were in conversation with the proprietor of a remedy which is having an extensive sale, and which is making its owner a handsome fortune. As he left the room for a moment his secretary volunteered the information that he was perfecting "an intestinal antiseptic". He said "You see the doctor is getting immensely rich over his remedy, and I believe there is a large field for a perfect intestinal antiseptic, therefore, I propose to introduce one of them." We assured him that if such a remedy could be discovered it would be of great value but we did not think his chances were very good. The theory of destroying germs in the alimentary canal is most attractive. We can easily imagine that a vast number of disastrous and dangerous affections will be forever banished in the presence of such a discovery. There are a number of remedies before the profession now which claim to do this work, but they do not stand the test of actual experience. One thing remains sure, and that is that when the bile fails to be discharged into the small intestine, we have symptoms of putrefaction. Nature has furnished us with a valuable intestinal antiseptic, and it appears to us that our study should be more in the line of producing this natural antiseptic rather than the internal administration of a drug for its purely local effect.

A Joke on Pasteur.

The story has been going the rounds of the journals for some months of Pasteur and his cherries. Before eating some cherries he dipped each one in a glass of water, and wiped it very carefully. Noticing that some persons at the table were amused, he discussed at length to them on the dangers in microbes and animalculæ. A few moments later, while conversing quite earnestly with friends he suddenly seized the glass in which he had so carefully washed the cherries, and drank the water, microbes and all. We relate the story here simply to ask why this should be such an unusual joke on a scientist, when we see things of a similar character about us each day? We see the ideal aseptic surgeon, who takes advantage of every opportunity to dilate on the dangers from germs, and how modern surgery as practiced by him owes its great success to the fact that it has freed itself from all forms of germ life, we see this surgeon in the midst of an operation wipe the perspiration from his face with the back of his hand, or we see him grasp the table and move it about, or we even see him close the door of his operating room! We see the general practitioner coming out of a room in which is a case of scarlet fever or diphtheria and in the most vigorous manner wash and scrub his hands to the neglect of the face and hair, and forgetful of the wearing apparel! We see the physician order that the milk shall be sterilized, and yet allow the mother to pour it into unclean nursing bottles! We see these inconsistent things about us all the time, and we would explain, for the relief of Pasteur, that we are all more or less guilty of the crime of which he is accused.

She Is Correct.

There is hardly a resident of this city who is not familiar with the work of Phoebe Couzins. Having an unusually brilliant mind, and knowing so well how to express herself, either before an audience or through the columns of the press, she threw herself, heart and soul, into the cause which was so dear to her. The last time we saw her she was quite an invalid, and yet there was a charm in her ready wit and sound logic. Of late she has been living at Los Angeles, a hopeless invalid, and in great want. The Medical Mirror publishes a letter which Miss Couzins wrote to the editor of a St. Louis paper, acknowledging the receipt of a small gift. After commenting on her own case and on the lives of others who have actively engaged in the work of reformation she says: "Don't waste your energies in trying to reform the world. It does not want to be reformed. Make for yourself the only safe harbor in time of trouble, the sweet security of a peaceful home, and let the world take care of itself, for it will never take care of you in time of adversity." Anyone who ever met this gifted woman knows that she could have had the selection of many peaceful homes, but she believed she had a greater work to perform. This should be a lesson of great power to the platform howlers and shriekers who are so constantly setting forth the terrible wrongs of the downtrodden woman. Poor Phoebe Couzins, she is realizing the great mistake of her life.

"But the Doctor Knew It."

How often do we hear this remark, "But the doctor knew it all the time". To the surprise of the relatives and friends they are informed that the sick one cannot live but a few hours. After it is all over and the death certificate reads "pneumonia" or "meningitis," and the relatives declare they had no idea the case was so severe, you always hear the remark, "but the doctor knew it all the time". At last the flushed cheek, the clear eye, the emaciated figure, hemorrhage, and the extreme weakness, make it too clear that only a few days remain for the poor consumptive. "Why was not something done earlier"? "Why did we not know this sooner"? are questions asked on every side. No one mistrusted that this terrible disease was fastening itself upon a member of the household. No one mistrusted it until all was over, when we are told that "the doctor knew it all the time". The doctor remains silent, as a wise doctor always should! Sometimes the doctor did know, and sometimes ——. The question is, "Should physicians always tell the patient, or some member of the family, the exact state of the case?

Information Freely Given.

The Health Magazine of this city, in an editorial, asks, "What is Recreation"? It is taking a hook and line, a hickory pole, and a few worms, proceeding down to the edge of some little muddy stream, stretching yourself beneath a shady, old tree, and calmly waiting for a nibble. A whole day spent in this way is the most exhilerating kind of recreation. At least this is the remembrance we have of it.

X Rays.

Forces invisible and powers stupendous are about us on every side. Many of our readers will be glad to learn of any strictly scientific reason why the hair is becoming thin on the top of the head, or why it has diappeared years ago. Two cases have been reported of late where the use of the Roentgen rays has resulted in the entire loss of the hair from that part of the head exposed to this newly discovered power. The scientific question now to be decided is why is it that the X rays have been working on the heads of men to the exclusion of women? It certainly cannot be because man is an unknown quantity.

Never Made a Mistake.

It is interesting to read of the libel action by a London physician against the editor of the British Medical Journal, Ernest Hart. The plaintiff won the case and the whole suit cost Mr. Hart, we are told, something in the neighborhood of $6,500, and yet Mr. Hart will not acknowledge that he made the slightest mistake. There is probably no greater instance of a man puffed up with his own conceit than this same editor, who retains his position today only because of a faction bound together for a particular political purpose.

Rebate to Subscribers.

A number of the members of the medical society had paid their annual subscriptions, beginning with March, when the new arrangement was made in June for the publication of the transactions of the society in this journal. Under this new arrangement each member of the society is entitled to a year's subscription. As this new deal began with our June number, so it follows that these subscribers had already received the March, April and May numbers on their subscriptions.

Therefore, to all these we will mail during this week the balance of 75 cents which is their due. Should any old subscriber fail to receive this rebate within a week, he will do us a favor by promptly notifying us of the same.

"One of These Days."

When we remember that one-fifth of all the number of deaths from all causes are due to tuberculosis; when we know without a question of doubt the cause of this disease; when we realize that large numbers of children are being affected by the use of tuberculous milk, will we not be conscience stricken "one of these days" when we think how careless and almost indifferent we were in 1896? Are we doing the tenth part of what we should toward the destruction of the tubercle bacillus?

Dr. Hammond Discontinues His Hospital.

We notice the advertisement in one of our exchanges to the effect that Dr. W. A. Hammond desires to state that, in accordance with very many requests from patients and intending patients "who do not like the idea of living in a hospital" he has discontinued the hospital feature of his practice.

Music as a Hypnotic.

Our exchanges are now discussing the question of the hypnotic power of music. We can give our personal testimony to such power. A thousand times has the sweetest voice that ever uttered a note charmed us into restful slumber as she sang:

> "Hush, my dear, lie still and slumber."

Although that voice is now four score years of age yet there is no other voice like it in the wide, wide world.

For an irritable heart in a prima-donna give some bella-donna.

In a herd of thirty-four cows in San Francisco an investigation showed that thirty-one were affected with tuberculosis.

The editor of an exchange says that he noticed there was a great deal of kicking at the recent meeting at Atlanta. He should be more careful in selecting his room mate.

"The man who dogmatically states that the general septic of purulent peritonitis has never been saved should limit his remarks to his own experience for he is not competent to speak for others."—*Jos. Price.*

THERAPEUTIC NOTES.

We begin again the publication in these columns of Therapeutic Notes. Each month we will present reviews and opinions of remedies which are represented in our advertising pages.

Dr. R. D. Huff writes that he regards Pineoline as a specific in the various forms of skin diseases. It promptly cures such annoying affections as acne, herpes, eczema, etc.

Dr. Thos. Leary of Ireland, writes to the British Medical Journal that he has used Sanmetto in several cases of catarrh of the bladder with enlarged prostate and in every case it has given him very great satisfaction.

Dr. A. W. Johnson, of Mechanicsville, N. Y., says that Peacock's Chionia has acted so nicely with him that he is constantly prescribing it in cases of hepatic torpor, and all diseases caused by a deranged hepatic condition.

Dr. O. M. Brown of Hookley, Tex., says he has used Seng since it was first placed on the market and not once has it failed to give relief in all forms of indigestion and malnutrition. He also gives his experience with Cactina pillets, and finds them much better preparations than the modest claims made for them.

A recent writer advocates that in cases of excessive weight Potassium Iodide be added to the well known preparation Phytoline. In a number of cases he has added the salicylate of soda, especially when there are rheumatic or gouty symptoms present.

Dr. Thos. More Madden of Dublin, author of "Treatment of Diseases of Women", says that no one can question the therapeutic value of Fellows Syrup of Hypophosphites. He considers it one of the most serviceable remedies we have for the treatment of the chronic wasting disease of childhood and youth.

We are in receipt of a letter from a well known physician in Philadelphia, who says that he has extensively prescribed Gray's Glycerine tonic in bladder affections, signalized by chronic cystitis, frequency of micturition, mucus in urine, etc. It has proved of great benefit in these special cases outside of its general tonic properties.

D. J. H. Giles of West Nashville, Tenn., says there is no opiate which serves the purpose equal to Papine. He uses this preparation and also Bromidia because he does not believe that the ordinary pharmacist can combine the ingredients so nicely as they are prepared at the home laboratory. He also prescribes them because he always obtains satisfactory results from their use.

Maizo-lithium is a new product now being introduced by the Henry Pharmacal Co., of Louisville, Ky. The Surgeon in charge of the National Home for Soldiers at Marion, Ind., which is an institution which accommodates 1,800, says that he regards this remedy as the most prompt and efficacious of any brought within his knowledge for the treatment of acute and chronic inflammations of the genitouritary tract.

Clinical observations have shown that if Sulfonal be properly administered it very rarely, if ever, fails to produce sleep. It is indicated in the same cases of insomnia in which chloral was formerly employed. It produces quiet refreshing sleep, more nearly resembling normal sleep than that produced by any other remedy. It should be given from one-half to one hour before retiring, and in some warm fluid, as milk, tea or soup.

In a recent discussion before the Richmond Academy of Medicine on the treatment of typhoid fever, Dr. L. B. Edwards described his method of treatment. He said that a prominent feature was the use of phenacetine in small doses. Two or three grains from three to four hours apart keep the temperature down to 101 or 102. He generally prescribes it in combinution with salol. During the past eight years Dr. Edwards said he had only lost one case of typhoid fever, and in this case his usual method was not fully carried out. Aside from the use of the phenacetine he gives the "chronic treatment", and of course giving due attention to diet and nursing.

BOOK REVIEWS.

PRACTICAL DIAGNOSIS. The use of symptoms in the Diagnosis of Diseases. By Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. In one octavo volume of 566 pages, with 191 engravings and 13 full-page colored plates. Cloth, $4.75. Lea Brothers & Co., Philadelphia and New York. 1896.

We have here a work which is written upon a plan quite the reverse of that commonly followed. Under the old methods the physician was obliged to do his best toward making a diagnosis and then turn to his reference book and learn the symptoms which are given as belonging to the disease he had dceided was present. Failing to find that the symptoms in the case corresponded with the descriptions in the text book he had to make another guess and read another article. In this work, however, Dr. Hare has changed things about completely. The discovery of any marked symptom will lead directly to the diagnosis. Take any prominent symptom, as vomiting. By turning to the chapter on this symptom, its various causes and diagnostic significance will be found; and the differentation of its various forms will be clearly described. We are acquainted with no author who writes in a more practical way than does this well known teacher. The first thought that must come to the reader of this book is in the nature of a surprise that no one has ever thought of presenting the subject in this manner before. As it is something new, eminently practical, and of every day use, we predict for this volume a rapid and extensive sale.

A MANUAL OF CLINICAL DIAGNOSIS BY MICROSCOPICAL AND CHEMICAL METHODS. By Charles E. Simon, M. D., late Assistant Resident Physician John Hopkins Hospital, Baltimore. In one handsome octavo volume of 504 pages, with 132 engravings and 10 full-page colored plates. Cloth, $3.50. Lea Bros. & Co., Philadelphia and New York. 1396.

Another valuable work relates to this same subject of Diagnosis, although in this case it is the application of chemical and microscopical methods which determine the disease. The day is rapidly passing with physicians when they can openly declare they are too busy to conduct careful examinations of the urine, sputum, blood, gastric juice, etc.; for by so doing they simply declare that they are either incompetent or indifferent to this advanced work. The practice of medicine is fast becoming a true science and art; and the author has done much here to hasten the overthrow of empiricism and guess-work. The work is abundantly illustrated with engravings and full page plates in colors. It is a complete and thoroughly practical exposition of the best methods of diagnosing disease by chemical and microscopic methods.

PTOMAINS, LEUCOMAINS, TOXINS AND ANTITOXINS. By Victor C. Vaughn, Ph. D., M. D., Professor of Hygiene and Physiological Chemistry, and Frederick G. Novy, M. D., Junior Professor of Hygiene and Physiological Chemistry in the University of Michigan. New (3) edition. In one 12mo. volume of 603 pages. Cloth, $3.00. Philadelphia, Lea Bros. & Co. 1896.

It is now becoming generally recognized that those diseases which cause the greatest mortality and consequently are of the greatest importance are in reality cases of poisoning. We know that pathological germs manufacture poisons and that every infectious disease is actually an intoxication. It is in keeping with these great facts that we have this volume before us. This third edition is greatly enlarged and special attention is given to the subjects of toxins and antitoxins. It is not a volume which any one would read with uproarious laughter, neither is it a volume which anyone can read and understand by looking over its pages lightly. It is one of these books which require concentrated thought and close application; and even then we fancy only a few pages will be mastered at a time. On the subjects treated it must be regarded as the standard text book of the day.

AN AMERICAN TEXT BOOK OF APPLIED THERAPEUTICS FOR THE USE OF PRACTITIONERS AND STUDENTS. Edited by J. C. Wilson, M. D., Professor of the practice of medicine and of clinical medicine in the Jefferson Medical college of Philadelphia, assisted by Aug. A. Eshner, Professor of clinical medicine in the Philadelphia Polyclinic. 1,326 pages, fully illustrated. Price $7.00 cloth, $8.00 sheep, $9.00 one-half Russid. Philadelphia, W. B. Saunders. 1896. For sale by subscription only.

This is eminently an American work, for with only two exceptions all the articles have been written by American contributors. The two exceptions are in the cases of Prof. Lavaran, who writes the article on Malaria and Dr. Rake who writes on Leprosy. There are over forty American contributors to this volume, each one of which is connected with some of our medical colleges. These contributors apparently are of one mind in presenting the subject invariably from a clinical standpoint. We thus have a volume which lays out a course of treatment to be followed at the bedside rather than simply recording a list of drugs that have been or may be used. The arrangement of the subjects is based upon modern pathologic doctrines, beginning with the intoxications and following with infections and concluding with the disorders of the several bodily systems. Dr. Theophalus Parvin contributes a chapter on the disorders of pregnancy. Such a volume as this, so exhaustive and comprehensive, written from the standpoint of the active practitioner, will certainly contribute to a better knowledge of the prevention, cure and alleviation of disease. It is well that such a work is sold by subscription, because the physician is thus given an opportunity of examining the volume and appreciating in a measure its great value. They say that "to see is to believe" and in this case we are sure that to see will be to purchase.

A MANUAL OF VENEREAL DISEASES. By Jas. R. Hayden, M. D., chief of Venereal Clinic, college of Physicians and Surgeons, New York. In one 12mo. volume of 263 pages, with 47 engravings. Cloth, $1.50. Lea Bros. & Co., Philadelphia and New York. 1896.

This is a concise manual for students as well as practitioners. It is a clear and practical exposition of the three venereal diseases, gonorrhœa, chancroid and syphilis, together with their complications and sequelæ. As all statistics and the full history of these diseases have been omitted, so we have here in a compact form an immense amount of practical information. Full directions are given for the treatment of these diseases, including a number of prescriptions and formulæ. The work is well illustrated and the price is very moderate.

AN AMERICAN TEXT BOOK OF PHYSIOLOGY. Edited by W. W. Howell, Ph. D., M. D., Professor of Physiology in the Johns Hopkins University; assisted by ten Professors of Physiology in American Medical Schools. Fully illustrated. 1,050 pages. Price, cloth $6.00, sheep $7.00. For sale by subscription only. W. B. Saunders, Philadelphia. 1896.

It is indeed unusual to have presented to us a work on Physiology edited by more than one person. But interesting and valuable as are the works of Flint, Dalton and others, it remains a fact that many of them have not kept pace with the rapid changes in modern physiology. So much attention has been given this subject of late years, especially in the line of experimental physiology that it is even doubtful whether one author could keep thoroughly informed on all the literature touching the whole subject. It is evident that there is considerable advantage in having a work of this kind edited by a number of authors. By so doing each author is enabled to base his paper upon a comprehensive knowledge of the subject assigned to him. This volume contains more physiology than is usual in a work of this kind, because it assumes that the student has some knowledge of anatomy or is studying it together with his physiology, hence we find that there is no considerable space given to the details of histology or anatomy. Our national pride certainly appeals to us in presenting a text book of this size written by ten eminent American teachers. The illustrations are quite new and we miss the old cuts which have been so familiar since our boyhood.

FEEDING IN EARLY INFANCY. By A. V. Meigs, M. D. 15 pages. Price 25 cents. Philadelphia, W. B. Saunders. 1896.

This is a reprint, neatly bound in cloth, of an article read by the author before the Philadelphia County Medical Society, April 8, 1896. It is a brief statement of the difficulties of artificial feeding and how these difficulties are mastered by the use of Meigs Artificial Food.

THE READY-REFERENCE HANDBOOK OD DISEASES OF THE SKIN. By George Thomas Jackson, M. D., Professor of Dermatology, Woman's Medical College of the New York Infirmary and in the University of Vermont. New [2] edition. In one 12ms. volume of 589 pages, with 69 illustrations and a colored plate. Cloth, $2.75. Philadelphia, Lea Bros. & Co. 1869.

The fact that a second edition of a work on the Diseases of the Skin is demanded is the best of evidence that this subject is becoming better understood by the general practitioner. Only a few years ago there was practically no attention given it in our medical colleges and only now and then a specialist claimed to know anything about it. But thanks to these same specialists and teachers as well, the subject has grown, until now students and general practitioners must be very familiar with it. The volume before us is rich and instructive in illustration, while scattered through the text are any number of well tried formulæ. The student, as well as the specialist, will find this volume a rich source of knowledge on all points which relate to dermal affections.

New Books by Lea Bros. & Co. These well known publishers announce that they will shortly have ready Davis' Treatise on Obstetrics. This will be a handsome volume of about 700 pages and will contain many full page plates in colors. They also announce that the second edition of Musser's Work on Medical Diagnosis will soon be issued from the press. As this is one of the leading text books in our medical colleges, so this simple announcement will be gladly received by those who follow the teachings of this well known author.

Bedside Record. The Imperial Granum Co., has issued a bedside record for the use of physicians and trained nurses. It is very comprehensive and also very convenient. The publishers announce that they will supply physicians and trained nurses with copies free of charge.

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TRANSACTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

EDITING COMMITTEE:

W. W. JOHNSTON, M.D., GEO. M. KOBER, M.D., JAS. D. MORGAN, M.D.

IMPACTED EXTRA-CAPSULAR FRACTURE OF THE HIP.

By James Kerr, M. D.

(Continued from the October number. Meeting of May 13, 1896.)

DISCUSSION.

Dr. J. Ford Thompson said: So far as the diagnosis between fracture and dislocation is concerned, I think there should be no difficulty even with an inexperienced man; but to diagnose an intra-capsular fracture or an extra-capsular fracture is more difficult. I have seen two cases in the last year where there was some impaction. No fracture had been detected, and the patients were advised to get about; in one case an extremely painful joint with a useless limb resulted; the other has no painful joint, but on walking the trochanter moves. Both cases are now incurable.

I do not agee with Dr. Kerr that a fracture should be broken up at any age. A weight of about ten pounds should be applied, for it will not be sufficient to destroy the impaction, but it will overcome the contraction of the muscles and prevent shortening of the leg. There is no reason why a fracture at the base should not get well as well as a fracture anywhere else. The nutrition is sufficient, and everything is favorable to perfect consolidation of the limb, and I think the great mistake is that we let these cases go without any treatment at all.

Dr. T. C. Smith referred to the difficulties of diagnosis of injuries about the hip, as shown in his own experience and reported an interesting case of fracture of the rim of acetabulum, where the crepitus was not discovered for several months.

Dr. Hobart S. Dye referred to a case of a fracture of the hip where crepitis was not discovered until two months later. There was no deformity and no pain on mater and the patient walked about.

Dr. J. Ford Thompson: The most important thing in these cases in my opinion is that treatment should not be neglected because all the symptoms of fracture are not present. Where you have eversion of the foot and loss of function of the limb the safest thing is to treat as a fracture. I do not think that a surgeon who is in the habit of seeing these cases frequently requires all of the symptoms to make a diagnosis. It often happens that the most serious difficulty in the way of making a diagnosis is that there is no crepitus.

The President: Is it possible for an impacted intra-capsular fracture to get well without shortening.

Dr. Thompson: No; there must be

some shortening with every case of impacted fracture.

Dr. James Kerr, in closing the debate, said: The object of my paper was to draw attention especially to fractures occurring in old age, and I only spoke of fractures in the adult to justify breaking up impactions. Every impaction involves some shortening, and it is not justifiable to let a young adult go about lame. The breaking up of impacted fractures has been done by a surgeon of Manchester, who reported his cases at the last meeting of the British Medical Association. In such cases the impaction does not become disengaged it should be broken up in order to restore the normal length of the limb. I do not believe that any treatment by extension, is scientific, except just enough to relieve the spasm, because impaction is the most favorable condition that can be obtained in old people, and all manipulation for the purpose of eliciting crepitus is unjustifiable. One of the saddest cases I saw was one of this kind, in which the impaction was broken up, and the patient died with symptoms of suppuration around the hip. Bryant says that it is important to know whether a fracture is impacted or not impacted. When there is impaction you get shortening, and when there is no shortening at first you may get it after two or three months. The special sign that I attach most importance to, is alterations about the trochanter, and I can generally diagnose a fracture by comparing the trochanters on both sides. In addition you have eversion of the foot, uselessness of the limb and some shortening.

PRELIMINARY OBSERVATIONS ON THE NUMBER AND NATURE OF BACTERIA IN FRESHLY DRAWN MILK.

By V. A. Moore, M. D.

It is well known that milk under ordinary conditions contains many bacteria. The large number is attributable to the multiplication of the bacteria which gain access to the milk either from the udder and the milk ducts themselves or from external contamination. Among the latter there is a great variety of fecal and purely saprophytic organisms, and occasionally the specific organisms of certain diseases peculiar to mankind which find their way into the milk through contaminated water used in washing the milk utensils or otherwise. Among the former are the specific bacteria of certain diseases of cattle common to the human species, such as tuberculosis and anthrax which are transmitted from the diseased cow to her milk. There are furthermore the bacteria which get into the milk ducts and multiply there after each milking and which necessarily contaminate the milk subsequently drawn.

It is supposed, by certain milk bacteriologists, that disregarding the age, the number of bacteria present depend largely upon the amount of dirt and filth which find their way into the milk after it is drawn from the udder. Passing over the details concerning the well known channels through which external contamination takes place, we come to the still more interesting fact namely, that it has been found impossible, in the majority of cases, to obtain milk free from bacteria when it is drawn directly into sterile flasks and under rigid aseptic precautions. The nature of these bacteria which constitute the normal bacterial flora of milk and their effect upon the milk itself and indirectly upon the health of the consumer, have received comparatively little attention. The examinations to determine the number of bacteria in, milk as it is delivered by the milkman, are legion, but the inquiries into the number and nature of the organisms which gain access to the milk through their localization and multiplication in the milk ducts are exceedingly few. In the milk ducts of the teats there are peculiar conditions respecting temperature and oxygen which undoubtedly favor the localization of certain species of micro-organisms. These organisms must necessarily contaminate the milk irrespective of external conditions, although their number and the variety of species will unquestionably depend largely upon the conditions under which the animals are kept.

Among the earlier carefully conducted experiments to determine the extent of the milk duct infection, were those of Leopold Schultz in 1892. He examined the milk bacteriologically at the first milking, in the middle of the milking and at its close. The results of the different tests were quite uniform. The first milk usually contained many bacteria, 97,200 per cubic centimeter being found in one instance in the fore milk. The number at the middle of the milking was much less, the average being 9,000 per cubic centimeter. The plate cultures from the milk at the close of the milking remained clear in some cases, in others from 500 to 600 bacteria per cubic centimeter were found.

In 1893 Gernhardt made a series of similar examinations but with quite different results. He found that the number of bacteria in the milk at first was moderately high often reaching 600,000 per cubic centimeter. This number rapidly increased so that the examination made at the middle of the milking showed as high as 7,000,000, but towards the close the number diminished so that frequently they were absent from the milk taken at the finish. His suggestions concerning the results are, that the bacteria grew up through the milk duct of the teats into the udder itself where they multiply rapidly in the acini of the mammary gland and the masses of colonies of bacteria thus produced are not readily removed. Gernhardt found many irregularities in his figures which he explained on the supposition that in the cases where the number of bacteria were excessively large entire colonies or masses of the organisms were washed into the milk.

Russell states in his Dairy Bacteriology (1894) that he has been unable to find strippings perfectly free from bacteria.

At the meeting of the Association of American physicians in Washington, 1894, Dr. T. M. Rotch presented a paper giving the results of the experiments of Dr. Austin Peters at the Walker-Gordon barns near Boston, Mass., to determine the number of bacteria in freshly drawn milk. In these experiments every possible precaution was taken to avoid contamination from without. The fore milk and the milk near the close were taken and also the milk drawn through a sterile cannula passed in the milk duct nearly if not quite through the teat. Four cows were thus examined with the following result:

	A	B	C	D
I	141	167	19	53
II	0	0	1	2
III	0	6	0	0
IV	0	0	1	2

Column marked I represents milk in the first half of milking and drawn by hand directly into sterile bottles.

No. II represents milk drawn through sterile cannula into bottle.

Nos. III and IV represent milk drawn by hand after more than half the udder had been emptied.

The columns marked A B C D represent the milk from the four cows, the figures showing the number of colonies of bacteria in each plate.

Rotch concluded from these examinations that the bacteria found in cows' milk do not necessarily come from external sources but that they may also come from some part of the milk tract between the udder and the end of the teat. He states further that these experiments provide us with a means of procuring a milk practically sterile without being sterilized. The few colonies obtained in the plates made from the milk in the latter half of the milking are considered as possible contaminations between the "cow and the plates". He does not consider the character of the bacteria found in the fore milk except to state that they were micrococci and small bacilli.

The very important conclusion reached by Dr. Rotch that sterile milk can be obtained by taking the liquid from the last half of the milking is not fully confirmed by the results of the writers previously mentioned although it is evident that frequently such a result is possible. The outcome of these examinations which have led to controverted rather than confirmatory conclusions have the disadvantage of being few in number, and conducted with animals kept under quite diferent environment so that additional examinations were much desired.

Russell has pointed out the interesting fact that the number and kind of bacteria differ according to the treatment the animal has received. He also states that when a reasonable degree of cleanliness is maintained those species of bacteria which predominate in numbers in any sample of milk are derived from the fore milk i. e. they were present in the milk ducts.

At different times during the past two years I have had opportunity of making bacteriological examinations under favorable conditions of the freshly drawn milk of a few cows. Owing to the infrequency of slaughtering milch cows I have been unable to make such an examination of the larger milk ducts and the acini of the udders themselves and consequently the assumption of Gernhardt concerning the presence of bacteria in the depths of the healthy glandular tissue can neither be confirmed or denied. The circumstantial evidence does not support such a theory.

In collecting the milk for the examinations the teats and udders were washed with a solution of 1 to 1,000 corrosive sublimate. The hands and arms were likewise disinfected and care was exercised to prevent the stirring up of dust. The milk was drawn directly into sterilized bottles. As yet a series of examinations from the milk drawn at different periods of the milking have not been made, as these examinations were intended to collect facts bearing directly upon the determination of the number, nature and constancy of the bacteria in the fore milk and the frequency with which sterile milk could be obtained, if the milk during the last past of the milking was drawn into properly prepared flasks. In collecting the milk from five to ten c. c. of the fore milk was taken in separate bottles from each quarter of the udder and about fifty c. c. near the close of the milking. Agar plates (in a few instances gelatine plates also) were made with definite quantities (from 0.1 to 1.0 cc.) of the milk. The result of the cultivations are summarized in the appended tables.

Number of bacteria per cubic centimeter in freshly drawn milk taken under aseptic precautions as determined by the number of colonies on agar plates.

Cow	Colonies in first milk Quarter of udder				Colonies in last milk Quarter of udder			
No.	R. F.	R. H.	L. F.	L. H.	R. F.	R. H.	L. F.	L. H.
1	0	6	6625	1 750				
2	7	Fungi	0	Fungi				
3	180	3840	1200	18				
4	5	1200	[x]	5				
5	0	3840	6	12				
6	very many	very many	0	600	1800	2400	0	0
7	" "	7200	8400	940	546	0	504	0
8	455	0	390	0	2	0	0	0
9	4	8	0	8	0	4	0	0
9–2	230	5	120	5	0	0	0	0
				Colonies on gelatine plates.				
1	Fungi	Fungi	1	690				
2	280x	0	0	0				
3	0*	0	0	0				
9	8	4	0	8	20	0	44	0
9–2	20	0	0	5	120	0	15	0

[x] Surface of plate grown over. * Plates kept in the ice box. x Streptococci.

It is a noticable fact that in every case bacteria were found in the last milk taken from one or more quarters of the udder. While it is possible, as presumed by Dr. Rotch, that they are the result of contamination between the "cow and the plate" the results here indicated as well as those heretofore reported, show an almost constant appearance of bacteria, often in small numbers to be sure, in the milk during the last part of the milking. Basing an opinion on the data in hand it appears that the last milk cannot be considered, generally speaking, as free from microorganisms, although it undoubtedly exits in such a condition in many instances. In nearly all the cases the bacteria in the last milk are so few that it is highly probable that they would not produce any appreciable effect upon the normal condition of the fluid if it is cooled rapidly, immediately after milking, to a temperature below that necessary for their multiplication. It is well known that numerous saprophytic bacteria, such as many of the water forms, will not multiply at the temperature of the animal body; and certain highly parasitic organisms like the tubercle bacillus fail to develop when placed in a temperature much below that of living blood. Thus certain bacteria are unable to multiply when placed in a low temperature where many purely saphrophytic organisms thrive luxuriantly.

The properties of the bacteria found in the fore milk are of more importance than their numbers. It has been stated that the species of bacteria which predominate in milk when taken under ordinary conditions are those contained in the fore milk. Russell states that the organisms found in the teat are those that produce lactic acid. Bolley and Hall of the North Dakota Experiment Station made a qualitative test of the fore milk of ten healthy cows. They report sixteen species, twelve of which produced an acid reaction in milk, three produced an alkaline reaction and one species failed to produce any appreciable change. They state that gas engendering organisms were not found.

I have not made a thorough differential study of the bacteria which I have found in freshly drawn milk. In all, twenty apparently different species were isolated. Of these, three were streptococci, four bacilli and thirteen micrococci. But one species was positively determined namely: *Bacillus cloacæ*, and this occurred in but one specimen and it is possible that it was an accidental contamination from external sources. This was the only gas producer in the entire series. Nine of the apparent species were ærobic, indicating their presence at the end of the teat, the others were facultative anærobes and could have come from higher up in the duct.

With one exception, the organisms isolated fermented lactose in both bouillon to which chemically pure lactose had been added, and in milk itself giving a decidedly acid reaction. A chemical analysis has not been made to determine the nature of the acids produced, but it is presumed that lactic acid predominates. Six, of the twenty species, produced a firm coagulation of the milk within twenty hours. The others coagulated milk in from four to ten days. A few of the milk cultures emitted a very strong "sour milk" odor, while the odor of the others was not perceptible or of a pungent disagreeable nature. Eleven of these organisms liquefied gelatine. It some instances liquefaction occurred rapidly, in others more slowly, several days being required to complete the process.

The pathogenesis of the organisms was tested by the subcutaneous inoculation of 0.5 cc. of a fresh bouillon culture into guinea-pigs, but invariably the animals remained well. In fact a perceptible local lesion was not produced in any case.

Although there was a marked morphological difference in certain of the organisms found in these examinations, there was a striking resemblance between them in their physiological properties. The fact that several of them were very active in their power to ferment sugar offers a valuable suggestion concerning the time for pasteurizing milk. As the number of bacteria in freshly drawn milk indicate that the multiplication of the fore-milk bacteria is progressing rapidly at the time of milking, there is every reason to suppose that this process continues until the milk is cooled to a low temperature and if it is not brought to a point below that possible for the multiplication, they continue to multiply and consequential changes are produced in the milk. In view of these facts it seems very important, that milk should be pasteurized as soon as possible after being drawn, if its normal composition is to be retained. Milk that has stood under ordinary conditions for from four to twelve hours, as it frequently does, before its bacterial flora is destroyed must necessarily have undergone more of less deleterious changes; the extent of these alterations depend upon the temperature at which it is kept and the number and nature of the bacteria in the fore milk. It is well known that all milk pasteurized after it is delivered by the milk vender does not agree with all children. It is furthermore asserted that the milk from certain animals, and in fact entire dairies, is objectionable on account of its rapidly becoming strong acid. Undoubtedly the food of the cattle has much to do with the quality of the milk, but the changes referable to the fermentation of the milk sugar are unquestionably dependent upon the action of certain of the fore milk bacteria.

Although I found a considerable number of apparent species in the plate cultures it should be stated that the majority of them occurred but once or twice only, and then in small numbers. All of the rapidly acid producing organisms and those which coagulate the casein with the sour milk odor were micrococci and these were the forms most frequently encountered. These were destroyed at a low temperature 50–56° C. when exposed for a period of twenty minutes. Spores were not found in any of the bacilli. Until opportunity is afforded for a bacteriological study of the ducts and the acini of the udders many important questions concerning the natural bacterial flora of milk must remain unanswered. These preliminary observations considered in conjunction with the results of other investigations lead to the following determination:

1. Freshly drawn fore milk contains a variable number of bacteria varying in number from a few dozen to many thousand per cubic centimeter. The last milk drawn at a regular milking contains, as compared with the fore milk, very few bacteria. It is the exception, however, to find a sample of milk that is free from micro-organisms unless it is taken during the latter part of the milking process from a single quarter of the udder.

2. The bacteria which become localized in the milk ducts and which are invariably carried into the milk are for the greater part rapidly acid producing organisms i. e. they ferment milk sugar, forming acids without gas. *Bacillus coli communis* and other gas producing bacteria sometimes found in market milk are presumably the result of external contamination.

3. The fact that sugar fermenting bacteria are invariably present in freshly drawn milk renders it necessary, if its normal composition is to be retained, that it should be pasteurized as soon as possible after it is drawn. This is necessary, regardless of the cleanliness of the stable, milking utensils and surroundings generally. Much of the intestinal trouble in infants, fed upon pasteurized milk, is undoubtedly due to the presence of acids produced in the milk, before it is heated, by sugar fermenting bacteria derived from the fore milk.

DISCUSSION.

Dr. Geo. M. Kober said that Dr. Moore's observations would indicate, either that the bacteria were present in the milk when secreted or that they passed beyond the sphincter of the lacteal ducts and invaded the acini of the mammary glands. Whilst this was of course possible he was not prepared to regard it as a normal condition. In view of the many sources of possible external contamination in these experiments it was necessary to be cautious in accepting Dr. Moore's observations as conclusive. But whatever the source of the infection might be, no one could doubt the great importance of the subject in the matter of infant feeding, and of laying great stress, as Dr. Moore had done, upon prompt sterilization of the milk, and he hoped that the time would come when the milk would be properly pasteurized and then cooled to a temperature of 45–50° F. at the milk farms, before being sent to the city.

Dr. Adajah Behrend thought that the paper was valuable, as showing the custom in dairies of cooling the milk before pasteurizing. He thought it would be well to advise that the milk be pasteurized at the dairies immediately after the milking, without being first put aside to cool, and be delivered in hermetically sealed cans.

Dr. Wm. C. Woodward said that if Dr. Moore, with all his advantages and precautions, had been unable to secure sterile milk, it was not to be wondered at that, with the ordinary care exercised, the milk, when it reached the table, consisted more of bacteria than of milk. The number of bacreria in milk was alarming! But, as Dr. Moore had insisted, it was not so much the number of bacteria as their character, that was of interest so far as the public health was concerned.

Dr. Moore said that he did not mean to convey the idea that bacteria ordinarily reached the milk ducts above the sphlinter muscle. Examination of the milk after the last milking showed that there were in some cases a great many bacteria present, but notwithstanding that fact he did not believe that the acini were affected in a healthy condition. So far as the sterilization of the milk was concerned, he was glad that the point had been brought out in reference to the time of sterilization. He had seen in several instances, where they had attempted to sterilize milk, disastrous results. This was due, he believed, to the fact that sterilization was postponed too long after milking, so that acid fermentation had begun, and this he thought was the cause of much intestinal trouble among children. The question of the probable localization of certain species of bacteria, possessed of active fermentative powers in the milk ducts, needs further investigation.

Congenital Pharyngo-Œsophageal Stenosis.

Dr. S. S. Adams presented a specimen with the following history:

Grace Smith Barber, colored, female, aged four months. Admitted to Children's Hospital, April 27, 1896. The mother stated that up to two weeks ago the child was in good condition, but at that time an inability to swallow liquids was noted, the milk being at once regurgitated through the nose. When brought in the child was in a comatose state, much emaciated, pulse rapid and feeble, respirations rapid and shallow. Hypodermics of whiskey and strychnia were at once given, hot bottles applied, and in a few hours the child showed evidences of reaction. An attempt to administer food substantiated the parents statement, regurgitation at once occurring. Attempts to pass even the smallest catheter proved futile and on passing the finger in the throat a fibrous ring was detected just below the epiglottis. Nutritive enemata of milk, eggs and whiskey were at once resorted to, and though the child continued to emaciate rapidly, life was prolonged by nutritive enemata, until May 11th, when she died of exhaustion.

Post mortem, (ten hours after death). Body very much emaciated, tissues pale and anæmic. Thoracic and abdominal viscera in advanced state of decomposition. The stomach was empty and appeared to be somewhat atrophied. A fibrous septum was found, including the upper part of the œsophagus, at about the junction of the pharynx with the latter.

Dr. Lamb made the following report on the specimen: Just about the pharyngo-œsophageal junction the pharynx ends in a wide cul-de-sac, except for a pinhole opening which may have been made in removing the specimen or in opening up the œsophagus. The irregular upper border of the opened œsophagus is of the same width as is the tube lower down, as if there had been a correspondingly wide cul-de-sac here. The specimen does not show any communication between the pharynx and œsophagus, direct or indirect. There is no evidence of inflammation from any cause.

DISCUSSION.

Dr. J. F. Thompson: I saw the case and thought the stricture was congenital. I concluded that the proper thing to do would be to perform an œsophagotomy, but the child died before my next visit to the hospital. Œsophagotomy would have been the proper operation, passing the instrument up from below. It would have been extremely dangerous to try to force it from above for fear of inflictnig injuries from which the child would certainly have died.

MEETING OF MAY 20, 1896.

Dr. S. C. Busey, President, in the Chair.

Appendicitis—Perforation, Peritonitis and Death.

Dr. Jos. Taber Johnson presented the specimen and reported a case of fulminating appendicitis, resulting in perforation, peritonitis and death. He was requested by Dr. Lincoln to see Mrs. X, Monday, at one o'clock. He found that the patient had been seized with severe pain in the appendicial region the night before. Dr. Lincoln had seen the patient in the morning and made the diagnosis of appendicitis. When seen at one o'clock she had a temperature of 101.8°, a pulse of 120, with well marked and painful appendicial tumefaction. The question of operation was discussed, but as the patient was violently opposed to it, and as she was resting much easier under the influence of morphine, it was decided to move her bowels with salines and see her again at six o'clock. At the evening consultation her temperature had reached 103.4°, pulse still 120°, considerable local tenderness but no abdominal distention. At ten p. m. her condition was about the same. Her temperature, however, was one degree lower, and her pulse ten beats less than at six o'clock; her bowels had moved freely and she was so free from pain as to decline the hypodermic of morphine, which Dr. Lincoln offered to administer. One reason for not urging an operation was that she had a number of fibroid tumors of the uterus, for which Dr. Lincoln had been treating her for a number of years, also a greatly enlarged spleen, which complications, it was thought, would render an abdominal operation more than usually hazardous and uncertain in its results. The patient passed a fairly comfortable night up to two a. m., when she was suddenly seized with agonizing pain in the region of the appendix, which rapidly spread over the entire abdomen, causing constantly increasing distention. The doctors were immediately summoned and upon consultation it was believed that the appendix had ruptured discharging its contents into the peritoneal cavity and that a rapidly spreading and virulent form of peritonitis existed. An operation was proposed as presenting the only chance for relief. No objection was made as it was evident that the patient would soon die unless relieved by surgery, Dr. Lincoln remained with the patient, doing what he could for her comfort, while Dr. Johnson left to make the necessary arrangements. Soon after daylight he returned, and the operation was at once performed; the appendix was readily found immediately under the incision distended by a number of round concretions, about the size of and resembling pills. One of these concretions was found free at the junction of the appendix with the cæcum where a perforation existed, which had admitted of its escape and also a quantity of foul smelling liquid fecal matter. The appendix was ligated off close to the gut: the stump turned in and closed over with peritoneum. The abdomen was thoroughly washed out and the wound closed around a glass drainage tube. The patient was put to bed in a much more comfortable condition than was expected. Notwithstanding the removal of the perforated appendix and a thorough "toilet of the peritoneum", the general peritonitis, which had begun with the perforation, went on with unabated fury, producing the death of the patient at nine p. m., fifteen hours after the operation, and forty-five hours from the beginning of her illness. If the operation had been performed sooner it might perhaps have been better, but on the other hand, it is exceedingly rare for the appendix to rupture so early. This case illustrates the dangers and anxieties which attach to every case of appendicitis.

The following pathological specimens were presented by Dr. Larkin W. Glazebrook:

1. Ruptured tubal pregnancy.
2. Hypertrophy of spleen following malaria with rupture.
3. Rupture of the right auricle, in two places, from the kick of a horse.
4. Perforation of the duodenum and liver by fish bone.
5. Rupture of the aorta.
6. General miliary tuberculosis in infant eight weeks old.
7. Segmentation of the spleen.

In the first five cases, which I present death was due to hemorrhage (acute), following the rupture of some organ in a healthy person. These cases also will impress upon us all, the importance of post mortem examinations, in most cases of sudden death. In many of these cases the diagnosis had been put down as apoplexy or heart disease.

Case I. A. M., colored, female, aged 35, married. While at work in her kitchen, with others present, fell and before aid could be secured, died. Death was supposed to have been due to heart disease. Upon external examination, the only point of note, was the morbid anæmic condition of all the mucous membranes. Upon section I found the peritoneal cavity contained forty-eight ounces of liquid and clotted blood. This was carefully removed and the uterus and appendages examined *in situ.* The uterus was of normal size, but the right tube was about the size of an ordinary orange, about its middle, posteriorly, I found the feet and legs of a fœtus, presenting through a rupture, one-half inch in length. From an examination of the fœtus I take it that pregnancy had advanced to about the eighth to tenth week.

Case II. L. W., white, male, aged 15 years. From the boys mother I learned that her son had been "sickly" for the last six months, having been treated by a number of physicians for malaria. About ten days previous to his death he was able to be up and about. April 1, 1896, while returning from a short walk, he either fell or leaned upon a low picket fence in front of his house, striking on his left side. His mother saw him fall and went to him, but before a physician could arrive he was dead. Upon examination I found him to be badly emaciated, jaundiced and the mucous membranes, all, anæmic. There was no evidence of violence. The abdomen was distended and contained fifty-six ounces of blood and clots. After this was removed the cavity was examined, the spleen was seen to be enlarged, weighing thirty-two ounces, very much softened, pulpy, with a ragged rupture of its inner, anterior border, five inches. Liver, enlarged and softened, otherwise normal.

Remarks: This case is one which is of great value to the general practitioner, especially in this locality, on account of the large number of cases due to the *plasmodium malariæ.* It should impress upon us all the importance of not only a routine treatment, but, also, a very careful restriction in regard to physical exertion during convalescence from the different types of the disease. We must remember that the organ is not only enlarged, but engorged with blood, and that as shown in this case it becomes soft and in this pulpy condition susceptable to any trivial injury. In certain localities, in this city, I rarely find a spleen weighing less than ten to twelve ounces.

Case III. J. B., colored, aged 58, male. Died suddenly, April 8th, after being kicked in the left side by a horse. Upon examination I found a large, powerful man, with no evidences external of contusion of fracture at the supposed seat of the injury. The pericardial sac found to be greatly distended, containing eighteen ounces of blood and clots, heart was examined *in situ* for any rupture, but none could be detected until it had been removed, whereupon a more careful examination I found two small ruptures in the upper, left border of the right auricle.

Case IV. This case wlll be listened to with great interest I feel sure, as many of you were personally acquainted with the deseased. I also take pleasure in making this official report, as there were many criticisms through the newspapers, etc., at the time.

S. M., white, male, aged 57, died suddenly April 4, 1896. Death supposed to have been due to cerebral hemorrhage. Upon opening the abdomen I removed twenty-four ounces of liquid blood and a number of large clots situated just posterior to the left lobe of the liver. At this time I noticed that the stomach and the duodenum were relaxed, so I immediately suspected a rupture. After the clots were carefully removed; I lifted up the left lobe of the liver *in situ* and found a fish bone one and a half inches in length, sticking one-half an inch deep into the under surface of the liver. I am very much disappointed that I have not the bone with me to-night, but I presented it to the Clinico-Pathological Society of this city, several weeks ago, but after the meeting, in some way the bone was lost. I then examined the stomach, which I found to be relaxed, but enlarged, the mucous membrane thickened, congested (chronic) and covered with a glairy mucus. Half an inch below the pylorus, a small tear was found that was one-fourth of an inch in length, upon the right anterior wall of the gut. For an area of two square inches the mucous membrane was in a most acutely congested condition. The liver was fatty and weighed ninety-seven ounces, nodular and tough. Both kidneys were enlarged and were in a cystic condition (advanced), other organs were in a fairly normal condition. In regard to the fish bone, I will state it was sharp pointed and as hard as any fish bone, although it may have been in the presence of gastric juice for some time.

Case V. N. P., colored, aged 40, six feet tall, weighed 190 pounds. While at work at the seventh street wharf, lifting heavy weights, he dropped suddenly to the ground and died within five minutes, April 20, 1896. Previous health, excellent. Supposed cause of death, sun stroke.

Pericardium was found tremendously distended and containing twenty-four ounces of blood with clots. In this case, it was almost absolutely impossible to determine the seat of rupture, until water from the spigot was allowed to pass into the aorta, when a small stream the size of an ordinary pin, escaped from a small red point, which resembled an ordinary pimple. Upon closer examination the aorta, above the valves, was found dilated, and anteriorly one or two thickened areas: valves throughout were normal.

A question as to the smallness of the aneurism and the origin of the pimple-like point which were so easily ruptured.

Case VI. J. B., colored, aged six weeks. Child was supposed to have died from the effects of a blow received. Mother states that the child had been "sickly" ever since birth. For the last few days the child was unable to take any food. I found a badly emaciated infant, with a barrel-shaped chest. Glands throughout, externally were enlarged. Both lungs were congested throughout, but were solidified only in areas. The lungs were infiltrated with gray, miliary tubercles, about the size of a hempseed and smaller. At the left apex several of these masses were broken down, and a small cavity was found, containing one ounce of pus. Bronchial glands as well as the other glands were enlarged. These tubercles were caseous. Both kidneys present the same spotted condition, as do also the liver and spleen. Alimentary canal was absolutely empty.

Cause of death, general miliary tuberculosis: and inanition.

Remarks: The age of this infant and the advanced stage of the tubercular processes, make this case of unusual interest. The latest writers and observers agree that they have never seen these tubercles well marked at birth, but that they generally begin to appear about the sixth or eighth week after birth. Green, in his able work upon Pathology, describes very minutely the two varieties of the tubercles found. The gray tubercles, he says, are small, hard and after some time caseous or calcareous; varying from a pin point to that of a hempseed or larger. The yellow tubercles are large and softer. The case which I present is a pretty example of an advanced stage of the gray variety of general miliary tuberculosis, occurring in an infant eight weeks of age. From the lesion present, I would suppose that the child was born in a tubercular condition in an advanced stage.

DISCUSSION.

Dr. Glazebrook, referring to the case of perforation of the duodenum by a fish bone, said he would like to hear something about the absorption of fish bones in the digestive tract. The question had been frequently asked him as to the action of the gastric juice upon fish bones. He had explained the case under discussion by the theory that the mucous membrane of the stomach was in such a condition of congestion that there was very little acid juice in the stomach.

Dr. Geo. W. Adair, U. S. A., reported that he had removed a fish bone intact from the rectum.

Dr. C. H. A. Kleinschmidt stated that he had removed a chicken bone from the rectum. He did not believe that, as a rule, the human gastric juice would have much effect on bones, but the gastric juice of dogs nndoubtedly acted upon them.

The President mentioned the case of a lady who had been in ill health for some time, with occasional paroxysms of violent pain in the abdomen. Some time afterwards she passed a large chicken bone from the rectum, and since then she had been free from abdominal pain and in good health.

Dr. G. L. Magruder also reported a case of a fish bone removed in perfect condition from the rectum.

Dr. W. P. Manning said there was no doubt about fish bones passing through the whole intestinal tract without being dissolved. He recalled three cases in which he had removed fish bones from the rectum that had not at all acted upon.

Dr. W. C. Woodward asked as to the frequency of sudden deaths from apoplexy. Apoplexy was frequently given as the cause of sudden deaths, but he did not think it caused sudden death as often as is believed. The experience of those who treated cases of apoplexy was that sudden death from this cause was infrequent.

Dr. Glazebrook said he could not agree with Dr. Woodward as to the infrequency of sudden death from cerebral hemorrhage, but he did agree with him as to the frequency with which that diagnosis was erroneously made.

COMPARATIVE RESULTS OF THE TREATMENT OF DIPHTHERIA, WITH AND WITHOUT ANTITOXIN, IN DISTRICT OF COLUMBIA.

By Samuel S. Adams, M. D.

In the prosecution of the work of collecting the data relative to the treatment of diphtheria in children, with its antitoxin, in private practice, in the District of Columbia, cases of diphtheria in which the serum was not used formed such a large proportion of the whole number that they have been incorporated in this paper for purposes of comparison. It must be understood that information asked for in the circular was not sought in the latter class of cases. All cases (311) of diphtheria, except ten, officially recorded, occurring in the District of Columbia from January 1, 1895 to April 15, 1896, are included in this paper. The exclusion of seven of the exceptional cases was because the bacilli diphtheriæ were present without the membrane and the injection being used for immunization, and in the other three it was impossible to obtain any information from the two reporters which would enable classification. While the physicians themselves have furnished the details in the cases treated with serum, the official records of the Health Department have been relied upon in the other cases.

During the period named 83 physicians treated 176 cases of diphtheria with antitoxin. Of these, 71 reported 160 cases in full, while 12, who had treated the remaining 16 cases, did not respond. The latter, however, are covered in this report, as sufficient information was gleaned from other sources to warrant proper classification. During the same time 80 physicians treated 135 cases of diphtheria without using its antitoxin. A third class, of 22 physicians, used the antitoxin in 56 cases, but did not use it in 38.

Ages. As the investigation was confined to children the sixteenth year represents the maximum age. The youngest child receiving the antitoxin was aged 10 months, and the eldest 16 years, the average age being 6.51 years.

Table showing ages of those receiving antitoxin: 6 months to 1 year, 1; 1 to 2 years, 6; 2–3, 15; 3–4, 16; 4–5, 21; 5–6, 17; 6–7, 16; 7–8, 20; 8–9, 18; 9–10, 20; 10–11, 9; 11–12, 4; 12–13, 3; 13–14, 3; 14–15, 3; 15–16, 4; total, 176.

The youngest child treated without antitoxin was four months old and the eldest 15 years, the average age being 5.96 years.

Table showing the ages of those not receiving antitoxin: Under 6 months, 1; 6 months to 1 year, 1; 1 to 2 years, 7; 2–3, 12; 3–4, 23; 4–5, 14; 5–6, 14; 6–7, 12; 7–8, 10; 8–9, 6; 9–10, 10; 10–11, 10; 11–12, 3, 12–13, 6; 13–14, 5; 14–15, 2; total 135.

Sex and color. Of those receiving antitoxin, there were white, male 78, female 85; colored, male 3, female, 10; total, 176.

Of those treated without antitoxin there were white, male 52, female 56; colored, male 11, female 16; total, 135.

While girls seem to be more susceptible to diphtheria in the proportion of 167 to 144 boys, the infrequency of the disease in the negro is most astonishing. The negroes affected represent but 12.54 per cent of the whole number of cases, while the proportion of negro population to white in the District of Columbia is 90,000 to 195,000.

Physical condition. The following table is supposed to show the physical condition of the patient at the time the antitoxin was injected. Although the exact condition given by the reporter was recorded in every case, it cannot be accepted as being correct, owing to discrepancies in other statements. For instance, some reported "good" and further on "sepsis" and "death" within twenty-four hours; others as "fair" when the comments showed the patient cyanosed, requiring immediate intubation; and still others wrote "bad" although the injection was given a "few hours" after the *appearance* of the membrane. Thus the purport of the question referring to the physical condition of the patient at the *time* of injecting the antitoxin was undoubtedly misunderstood by many. Good 73, fair 41, bad 52, not stated 10; total 176.

Time of injecting antitoxin. The following table shows the time elapsing between the first appearance of the membrane and the injection of the antitoxin. A vast majority answered this question correctly, but a few understood it to apply to the time between the diagnosis and the injection. The importance of being accurate in this observation will be appreciated in studying the results of this treatment.

Table showing the duration of the membrane when antitoxin was injected: 6 hours, 2; 12 hours, 3; 24 hours, 26; 36 hours, 12; 2 days, 31; 3 days, 29; 4 days, 21; 5 days, 9; 6 days, 8; 7 days, 11; 8 days, 1; 9 days, 1, 10 days. 1; 11 days, 1; not stated, 20; total, 176.

Thus 103 cases received the injection on or before the third day of the disease.

Diagnosis. The diagnosis was confirmed by a bacteriological examination in 159 cases and was made without it in seventeen.

Number of Injections given in each case. One injection was administered in 119 cases; two in thirty-four cases; three in five cases; seven in one case; and the number of injections was not stated in seventeen cases.

Intubation was performed twelve times and tracheotomy once, the latter having been performed after the expulsion of the intubation tube, which had been in place seven hours.

Operations. The three fatal cases in which intubation was performed require some comment. In one, aged three years, the alarming symptoms were relieved, but the patient, unfortunately died from strangulation before any idea of the action of the antitoxin could be formed.

In another, aged four years, the injection was administered, and intubation and tracheotomy were performed on the fifth day after the recognition of the disease. The physician pronounced this case hopeless upon his first visit, but must be commended for his efforts to relieve the child's suffering by the second operation.

In the third, aged four years, the child's condition and surroundings were such that death was imminent when the physician first saw him, but nevertheless, intubation was performed and the antitoxin administered.

The other cases of diphtheria, which recovered after intubation were unusually severe; seventy-five per cent recoveries of intubation in children between two and seven years is more than creditable and must be greatly due to the beneficial effects of the antitoxin.

Location and extent of the membrane. The location of the membrane has been accurately recorded. Tonsils, 46; larynx, 3; tonsils and pharynx, 34; nose, pharynx and larynx, 2; tonsils and nose, 8; pharynx, 3; tonsils and larynx, 11;

pharynx and larynx, 3; nose and larynx, 1; nose and pharynx, 2; tonsils, pharynx and larynx, 11; tonsils, nose and larynx, 1; tonsils, nose, pharynx and larynx, 15; nose, 1; tonsils, nose and pharynx, 19; not stated, 16; total, 176.

Complications. The following are the complications in the order of their frequency: Nephritis in 13; paralysis in 13; sepsis in 12; nephritis and paralysis in 5; broncho-pneumonia in 3; sepsis and paralysis in 3; nephritis and sepsis in 2; nephritis, sepsis and paralysis in 2; broncho-pneumonia, sepsis and paralysis, 1.

Only three cases of erythema are reported. Scarlatinal infection complicated two cases, one being fatal.

Results. That which concerns us most in a discussion of this kind is the therapeutic value of the antitoxin of diphtheria. One reporter may assert that it acts as if by magic; another that he could see nothing astonishing in its action, but has no objection to using it; while a third, the defender of the time-honored compound of the ferric chloride and potassium chlorate, decries its use altogether. The members of each class are entreated to ponder over the following data before passing final judgment.

During the year ending June 30, 1894, before the introduction of antitoxin, 432 cases of diphtheria were reported in this District, the average age of those attacked being 8.7 years. Fifty-eight were white males, fifty-four white females, twenty-six colored males, and thirty-four colored females. There were 172 deaths, the percentage of deaths to cases being 39.8.

During the fifteen and a half months ending April 15, 1896, after the introduction of antitoxin, 311 cases of diphtheria were reported, the average age of those attacked being 6.23 years. There were seventy-three deaths, the percentage of deaths to all cases being 23.44.

During this same period 135 cases were treated without antitoxin, the average being 5.96 years. There were forty-seven deaths, the percentage of deaths to all such cases being 34.81, a death-rate of only 4.99 per cent less than that when antitoxin was unknown, the average age of the decedents being 4.25 years.

During this period also 176 cases were treated by the injection of antitoxin, the average age being 6.51 years. There were twenty-six deaths, the percentage of deaths to all cases receiving the antitoxin being 14.77, the average age of the decedents being 4.66 years. There were twenty-two physicians who used antitoxin in fifty-six cases, but did not use it in thirty-eight cases during the same period. In the former group there were fourteen deaths, the percentage of deaths to such cases being twenty-five; in the latter group there were eleven deaths, the death-rate being 28.94 per cent.

The reporters notes on the fatal cases in which antitoxin was used may be summarized as follows: 2 years, 2; 2½ years, 2; 3 years, 4; 3½ years, 2; 4 years, 6; 5 years, 2; 6 years, 3; 7 years, 2; 8 years, 1; 9 years, 1. The youngest child was two years old, and the eldest nine years, the average age being 4.66 years.

The ages of the decedents that did not receive antitoxin are given below: 5 months, 1; 9 months, 1; 1 year, 3 months, 2; 1 year, 5 months, 1; 1 year, 6 months, 2; 1 year, 8 months, 1; 2 years, 5; 2 years, 6 months, 2; 2 years, 9 months, 1; 3 years, 5; 3 years, 6 months, 1; 3 years, 10 months, 1; 4 years, 4; 4 years, 11 months, 1; 5 years, 3; 5 years, 2 months, 1; 6 years, 4; 6 years, 3 months, 1; 7 years, 2; 7 years, 3 months, 1; 8 years, 1; 9 years, 3; 10 years, 1; 10 years, 3 months, 1; 12 years, 1. The youngest being six months old and the eldest twelve years, the average age being 4.25 years.

Fifteen white males, nine white females and two colored females, that had received antitoxin died. While of those treated without antitoxin, twenty white males, sixteen white females, five colored males and six colored females died. The physical condition at the time of the injection was stated to be good in three, fair in two, bad in nineteen and was not given in 2. The time from the first appearance of the disease to the first injection was 6 hours, 1; 12 hours, 1; 36 hours, 2; 2½ days, 1; 3 days, 1; 4 days, 1; 5 days, 2; 6 days, 4; 7 days, 4; 8 days, 1; 10 days, 1; 11 days, 1; a few hours before death, 2; not stated, 4.

It will be seen that twenty of the fatal cases did not receive the injection until after the third day. It is very generally admitted that the value of antitoxin rapidly declines after the third day of the disease.

The diagnosis was confirmed by cultures in twenty of the fatal cases, but not in six. The number of injections given in the fatal cases were as follows: 1 in 17; 2 in 7; 3 in 1; 7 in 1.

The extent of the membrane is as follows: Tonsils in 1; tonsils and larynx in 1; tonsils and pharynx in 2; tonsils, nose and pharynx, 3; tonsils, pharynx and larynx, 4; tonsils, nose, pharynx and larynx, 7; nose and pharynx, 1; pharynx and larynx in 2; larynx in 1; not stated in 4. Intubation was performed in three and tracheotomy also in one of them.

The complications noted in the fatal cases were: Sepsis in 8; nephritis in 3; paralysis in 2; sepsis and scarlatina in 1; sepsis and nephritis in 1; sepsis, nephritis and paralysis in 1; broncho-pneumonia in 1; strangulation in feeding in 1; not stated in 8.

Kind of serum which was used in fatal cases: U. S. M. H. S. in 8; Behring's in 7; Mulford's in 2; Roux's in 1, Fraser's in 1; not stated in 7.

The reporters commented upon their fatal cases as follows: One called his case malignant; two said theirs were hopeless when the injection was given; one said no effect was noted; five that the serum was used too late; two that the membrane rapidly disappeared; one that the case was of marked severity; five that the patient's were moribund; one that temporary improvement followed the injection; and one that the patient was strangulated with milk; while seven offered no comments.

Treatment. General—In almost all, the diet was restricted to liquids, the preference being given to milk. The drugs used in the order of frequency were: Ferric chloride in 51; stimulants in 37; strychnia in 16; mercuric chloride in 15; quinia in 14; mercurous chloride in 4; digitalis in 2. In a vast majority of cases internal medication was stopped as soon as the serum was injected, with the exception of stimulants, strychnia and digitalis.

Local—The local treatment appears not to have been neglected, as the following table shows: Hydrogen peroxide in 51; potassium chlorate in 11; antiseptic sprays in 7; trikresol in 6; borolyptol in 5; listerine in 1; creolin in 1; vapor of quicklime in 1.

Antitoxin used. The kind of antitoxin used in each case is as follows: U. S. Marine Hospical service in 66; Behring's in 64; Roux's in 4; Mulford's in 5; Parke, Davis & Co's in 4; Aronson's in 2; Fraser's in 2; not stated in 30; total, 177. One patient received Behring's at one time, Roux's the next, which accounts for the extra one.

DISCUSSION.

Dr. J. J. Kinyoun being asked to open the discussion, said: I have very little indeed to add to the exhaustive statistical report of Dr. Adams. Some time last year the Marine Hospital service undertook an investigation of the prevalence and mortality of diphtheria and croup in the United States, limiting the investigation to cities of 25,000 inhabitants and over. Reports have been received from 109 cities, representing a population of 11,125,000. In these 109 cities there occurred in the last five years 175,000 cases of diphtheria, with a mortality of 62,500, or 36.7–10 per cent. If we separate the years into periods there occurred from 1891–94 inclusive 130,000 cases with a mortality of 51,500, making a percentage of about 39. In the last year, 1895, there were 45,000 cases reported with a mortality of 11,000, a dropping from thirty-nine per cent to 24.4 per cent. Notwithstanding, there has been during the last year an epidemic of diphtheria not noted in the table as a whole. In St. Louis, Chicago, New York and Boston there have been a greater number of cases than in previous years. It is claimed by those holding an opposite view, that we regard a great many more cases as diphtheria now than formerly, because we rely upon the microscope for diagnosis. We are willing to admit that cases are reported now to the Health Officer—mild cases which formerly would not have been classed as diphtheria, but the reports show that only seventy per cent of the cases previously reported were really diphtheria, consequently instead of having thirty-nine per cent of deaths they would have fifty-five per cent. There has not been an increase of thirty per cent more cases reported in the last year —1895—so that the figures can be equalized, and we must ascribe the low death rate to some other cause. In the cities of Massachusetts, several of those in New York, Chicago, St. Louis, New Orleans and Washington the death rate has been materially lowered—not in actual numbers only, but in percentage of mortality. To arrive at an accurate conclusion as to whether antitoxin has value or not, the larger the number of cases considered the better. I believe that 3,000 cases, or 5,000 or 10,000 cases reported just as they are reported to the Health Officer should have just as much weight this year as we were prone to give them in former years. I have collected reports of 5,125 cases of diphtheria and croup treated with antitoxin with 552 deaths, a mortality of 10.7 per cent, and 2,396 cases of diphtheria and croup not treated with antitoxin with 1,110 deaths, a mortality of forty-two per cent. I have also to show the value of antitoxin for its immunizing effects, and its harmlessness. Reports have been received of 2,400 cases of children under ten years of age who have been immunized, with the result of only nineteen mild cases of diphtheria, the majority occurring on the second or third day after inoculation, while others appeared after the eighteenth day. The classic paper of Prof. Welch, bears out the prophesy, that was made, that the better we become acquainted with the remedy the better would be the results obtained. He reports over 7,000 cases treated with antitoxin with a saving of seventy-eight per cent of cases, a majority of them being hospital cases of the worst kind; 2,500 cases were treated without antitoxin with a mortality of forty-two per cent. If we combine these two reports we have a total of over 12,000 cases treated with antitoxin, with a mortality of fourteen per cent, against 4,500 cases treated, synchronously, without antitoxin with a mortality of forty-two per cent. The reports received from every part of the world bear out the above figures. From London we have a report from the superintendent of the Metropolitan Asylum Board that for 1894 the mortality was forty-two to fifty per cent, and in 1895 has been diminished seven per cent. The authorities are unanimously of the opinion that this result cannot be attributed to any other cause than the effects of the antitoxic remedies.

All agree that the remedy should be given early, as after the fifth day it does no good. I would urge on the profession to give it in every case of diphtheria, for it is the greatest remedy for the disease which has been discovered.

Dr. C. H. Alden, U. S. A., said: It has occurred to me that a report of some of the results obtained in the army from the use of antitoxin, though the number of cases that have occurred is not large, may be of interest. Major Charles Smart, who had charge of the reports of medical officers, has placed these reports in my hands. The mortality of two per cent is very low, owing to the better hygienic surroundings in the army than in ordinary life.

Reports as to the use of antitoxin of diphtheria have been received from the following stations: Fort Leavenworth, Kansas; Fort Omaha, Nebraska; Fort Niobrara, Nebraska; West Point, New York, and Fort Myer, Virginia.

In all forty-one cases have been reported as having been treated by the antitoxin of diphtheria, with but two deaths. In seventeen cases the remedy was used on the first day, in seven cases on the second, in four cases on the third, and in two cases on the fourth. In all these cases no death has occurred. In two cases the remedy was given on the fifth day of the disease, in one of them possibly even later, and both of these cases died. In addition to this there were nine cases in which the antitoxin was used but in which the day upon which it was used was not stated. In these nine cases no death occurred. The diagnosis in all these forty-one cases was made by microscopical and bacteriological investigation.

There was one case not included in this series which was probably a case of diphtheritic laryngitis, but diagnosis could not be established microscopically, and death occurred on the first day from stenosis of the larynx. There was no membrane on the pharynx. This case had been given an injection of antitoxin but has not been included in the forty-one cases reported.

One of the medical officers at West Point, New York, reported that previous to the use of diphtheria antitoxin, eleven cases of diphtheria had occurred with six deaths; since the use of the remedy, nine cases and no death. Twenty-three protective inoculations are reported, in none of which cases did the disease subsequently appear.

Dr. J. E. Walsh said that while it may be true that statistics might be manipulated to prove anything, nevertheless the statistics of diphtheria in the District of Columbia for the last five calendar years were interesting and valuable. They show that while the number of cases occurring during the last four years is smaller than in 1891, the mortality increased each year from 32.6 per cent in 1891 to 38.8 per cent in 1894. It has been claimed that since bacteriological examinations have been made many cases have been regarded as diphtheria which otherwise would not have been so classed and that, therefore, a larger number of cases are reported. The fact is that a much smaller number is reported than formerly as is shown by the report for 1895, which is 264 cases, a fewer number than during any year since 1891, when no examinations were made. I am sure many cases have been rejected on examination which without it would have been called diphtheria.

1891	622	cases	mortality	32.6	per cent
1892	361	"	"	34.1	" "
1893	412	"	"	36.7	" "
1894	539	"	"	38.8	" "
1895	264	"	"	25.37	" "

Of the 264 cases occurring in 1895, 129 were treated with antitoxin, while 116 had no antitoxin, and in nineteen cases the treatment was not given. The mortality in each series was: of the 129 treated with antitoxin twenty-three died, a percentage of 17.83, while of the 116 who received no antitoxin, forty-three died, a percentage of 37.08. Deducting from those treated with antitoxin eleven who received the first injection after the fifth day, several of them when moribund—practically not getting antitoxin action—it leaves a mortality of only 9 and 3–10 per cent. It was curious, said Dr. Walsh, that the mortality should drop from 38.8 per cent to 25.3 per cent, if there were no virtue in antitoxin, for the conditions were just the same in the two years.

Dr. C. W. Richardson: I do not think any one at the present day supposes we have a specific for diphtheria in its antitoxin. The greatest enthusiasts only claim that it is the best known remedy for diphtheria. There is one point that I wish to remark upon, and that is the shortening of the period for wearing the intubation tube since th use of antitoxin. I find that I can generally take the tube out on the second or third day, though I have left two in until the fourth day, purely for personal reasons. I think that that is a great point to be gained, and even if we did not save so many lives we lesson the anxiety and worry of the family by the shortening of the time for the wearing of the intubation tube.

Dr. Wm. C. Woodward: In the consideration of the question, whether in antitoxin we have or have not a specific for diphtheria, we must remember that clinical diphtheria is not always dependent upon the Klebs-Lœffler bacillus alone. We can hardly expect, therefore, that a remedy derived from the Klebs-Lœffler bacillus will yield specific effects over conditions resulting in part from other bacilli. When we have studied these other bacilli more carefully we may find a specific for all cases of diphtheria. At the present time we probably have a specific for cases of infection by the Klebs-Lœffler bacillus, but it will not work miracles; and, if the system is so much damaged by the toxins before the antitoxin is given, that it cannot recover, most assuredly we should not expect the patient to get well.

Dr. G. M. Kober: Dr. Adams referred to the comparative immunity of negroes. Is it not a fact that the delicate children of the refined and well-to-do suffer more frequently from diphtheria than those of a more robust constitution? And would not the delicacy of the mucous membranes in this class favor the invasion of the specific organism?

Dr. Adajah Behrend said that an interesting and important point was as to the immunizing of families in which one case had appeared, and the success which had been attained. We all know that if one child was taken with the disease, if there were a half dozen more in the house they would get it too. He had had a case of diphtheria in a family, and had taken the trouble to immunize three other children, and they did not take the disease.

Dr. S. S. Adams, in closing the debate, said: So far as the question of immunization is concerned, I stated in my paper that it was answered by only six reporters. From personal experience I would state that in one family a girl, nine years of age, suffering from diphtheria, who received the serum of the Marine Hospital service, had on her bed the day before the injection was given a child six months old, and kissed it and had it with her over an hour. Another child two and a half or three years of age was in the room all day until I put him out. An immunizing dose was given these two children, and they did not develop the disease. Such cases were eliminated then. They were reported to the Health Officer when no membrane was present. A queer thing was told me by one reporter. A man had five children sick with diphtheria, of whom three did not get antitoxin and died, while two did receive it and were saved, and yet that man said he had no faith in the value of antitoxin. Those who treat the largest number of cases insist that local treatment must be kept up, and stimulants given. So far as my own convictions go I am not an enthusiast over antitoxin. It is not a specific, but it is the best thing we have found. I have not seen a death from its use, and in the whole number of cases noted in my paper not an accident of any kind has been reported. An erythema has occurred, however, much more frequently than was told in the paper. Regarding simply the question of mortality you see that in every instance the mortality with those who administer antitoxin is much less than those who do not use it. You cannot say that one class of cases is milder than another, because most of these cases are confirmed by bacteriological observations. Many observers had the opportunity of giving it or not, as they chose, and in those cases where they did not give it, the mortality remained where it was before; while in those cases where it was given the mortality dropped to fourteen per cent.

MEETING OF MAY 27, 1896.

Dr. S. C. Busey, President, in the Chair.

Cystic Tumor of the Ovary.

Dr. Bovee presented a specimen of ovarian cystic tumor with the following history: Mrs. C—, white, aged forty years, married, was admitted to Columbia Hospital, May 20, 1896, complaining of a large abdominal tumor, that was first noticed about seven months ago; she had had eight children, the last being born about the time the tumor was first noticed; when admitted to hospital she was emaciated and weak; had continued nursing her baby and had considerable milk in the breasts that causes annoyance; an examination revealed an enlargement of the abdomen equal to that of full term pregnancy, a nodular mass forming part of the mass, with fluctuation and very little movement present; vaginal examination revealed nothing additional and I was led to believe that there was cancer or tuberculosis to deal with. Operation was decided upon and was done May 25th. As soon as the abdomen was opened, fully a gallon of free, gelatinous fluid flowed out and escaped; a cystic tumor was presented to view and a Tait trocar was plunged into it but brought no fluid; it was withdrawn and the opening enlarged, allowing the escape of quite a large quantity of the same kind of material as was in the abdominal cavity; the cyst was multilocular, contained precisely the same kind of material in all compartments and was a growth from the left ovary. No adhesions were present; the right ovary was in the same condition, only much smaller; the peritoneum was much thickened and appeared much like the jelly-like material mentioned. After removing the appendages, an opening was made into the vagina, behind the uterus, and the peritoneal cavity thoroughly flushed out; gauze drainage through the vagina was carried out and the abdominal wall closed with buried kangaroo tendon. She made a good convalescence. The nature of the tumor was not decided. It closely resembles colloid material and yet it is probably some other form of malignant ovarian cyst.

SKIAGRAPH OF BULLET IN HEAD OF LEFT FEMUR.

THE NATIONAL

MEDICAL REVIEW.

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THE EDITOR'S TABLE.

Roentgen Rays. Our full-page illustration is a conclusive proof in itself of the surgical value of the X rays. The illustration is from the original photograph by Dr. Gray, and as it is produced by the photo-engraving process it must be an accurate reproduction. If held in the right light and at a certain angle, it is possible even to obtain a faint outline of the head of the femur. The faint outline of the fleshy parts is readily discerned, while the shaft and great trochanter of the femur are clearly seen. There is no mistaking the presence of a foreign substance through which even the X rays will not penetrate.

The Value of Statistics. We have had occasion before to remark on the value of statistics, When properly analyzed and carefully studied they are of great value, but it is one of the easiest things in the world to draw conclusions from tables. We are told that a bacterium, under favorable conditions, will divide once every half hour. This authority says that a little arithmetic will show that in twenty-four hours we will have 16,777,220 bacteria. At the end of another twenty-four hours we would have 281,500,000,000,000. Soon we will have a mass of bacteria equal in weight to that of the earth itself. Now if the greater part of these bacteria had developed nearer one pole than the other, what terrible disarrangement of the whole celestial system might not follow! And all this from the study of statistics.

Free Dispensaries. The questions which Dr. Sothoron discusses in his paper are now officially before the profession of the city and the committee appointed to investigate and report upon the subject has already commenced work. The report promises to be most exhaustive.

Medical Society Proceedings. We understand that the Editing Committee intend to complete the publication of the Transactions of the Society up to the October meetings, in the next number of this journal. In that number will appear the memorial papers on the life of the late Dr. J. M. Toner.

THE SOUTH WASHINGTON DISPENSARY. The quarterly meeting of the staff of the South Washington Dispensary was held October 15th. Since January 1st there have been treated 991 new patients with 1,038 revisits making a total of 2,029 calls. This is an institution where the patients pay a small sum for their medicine and it has been found that the deserving ones and needy sick find no fault with the arrangement. It has been determined to enlarge the medical staff and to secure more commodious quarters.

COMMUNICATIONS.

MISSILE REMOVED FROM FEMUR AFTER LOCATION BY ROENTGEN RAYS.

The accompanying plate illustrates most admirably the value of the X rays as an aid to surgery in determining the presence of foreign bodies in the living tissues. It must be confessed in the case under consideration that all the structures of the hip joint must have been explored in the search for the bullet, and probably in vain, had it not been for the light thrown upon the subject by this new method of photography.

A brief history of the case follows:

M. S., robust, white female, eighteen years of age. In January, 1896, received wound from a No. 32 calibre revolver, the bullet entering the left groin, one inch below and exterior to anterior superior spiuous, process remaining imbedded in tissues. At the time, no effort was made to remove it, and the parts about the joint became gradually swollen and painful. Six months later she appeared at the Garfield Hospital. Treatment at first consisted of perfect rest in bed and the application of Buck's extension to the affected limb, with partial relief of the symptoms; later, as pain returned upon removal of the apparatus, it was deemed wise to try the X rays. A beautiful negative was made by Dr. Wm. W. Gray of the Surgeon General's office, depicting the missile buried in the substance of the left femur, immediately below the great trochanter. Under ether anæsthesia a free incision was made, laying bare the parts, and upon gouging and curetting out the cancellous tissue, the bullet was finally removed having almost perforated the femur, from before backward and downwards. The patient is doing well, and it is hoped, the irritating substance having been extirpated, she may go on to perfect recovery.

JOHN VANRENSSELAER, M. D.
No 1, Thomas Circle.

FREE DISPENSARIES VS. THE YOUNG PHYSICIAN.

Competition is the life of all trades, but it is hard for the struggling and half-discouraged young physician to have to compete with the large number of Free Dispensaries which we have in our city, the majority of which are controlled by the very men who have signed his diploma and whom in their praises of the noble profession which he (the young physician) has chosen, have pictured to him the nobleness and easy living which his profession will give him.

Every man has a right to expect and demand honest employment, and when the young physician sees the same going away from him, hypnotized and attracted by the "Free Dispensaries" giving, contrary to business principles, something for nothing to those who are abundantly able to pay for it, is it any wonder that at last he is tempted to seek the fields of "quackery"? Let such a condition arise in any labor organization and we would see a great uprising, one that would soon remedy the fault. Every fair minded physician is obliged to admit that Free Dispensaries (not too many) are a necessity in any city; but they should be exclusively for the poor, and not for those who have means to pay for services rendered them. This latter class is daily taking advantage of our free institutions, not only in this city but in every city in this country.

In an editorial of the New York Policlinic Journal for September, the writer claims that four-fifths of the patients treated in the Free Dispensaries of New York city are able to pay for medical services. Think of it! Four-fifths of New York's vast number of dispensary patients masquerading as paupers and being willingly treated as such, when they are able to pay for medical advise.

It is noble and good to be charitable, but when you see charity abused before your very eyes and know that those in charge of our dispensaries will not make an effort to prevent this abuse by giving the matter honest consideration, then they must be held responsible for not adopting some means to prevent injustice which is being done every young physician who has just begun his professional career. They owe it as a duty of gratitude to their young brethren of the profession for their honest desire to shun the methods of "quacks" and their willingness to uphold the code of ethics of their profession.

Who administered to the comfort of the charity patient before it became fashionable to establish a Free Dispensary almost on every other corner? It was then that every physician did his share of charity work and made many friends by doing the same, often times being rewarded for his services when least expected.

There is no denying that the Free Dispensaries have taken the very foundation of a start from the young physician. No doubt he would attend a great many who would not be able to compensate him, but at the same time he would attend others who would pay him a small fee, which after all would help him to pay his daily expenses and like-wise erase the word "disappointment", which is written across the forehead of so many bright young physicians, who to-day are struggling for an existence.

I am not one of those who believe that we could do without our Emergency Hospital, for the same is one of the most important necessities of our city, but let the honorable and charitably inclined members of its staff refer the emergency patient to his family physician for further treatment after they have performed all necessary duties. Their prompt and efficient work should end here and not go so far as to tell him to call at his or another member of the staff's office for further treatment when he conscientiously knows that the patient has a regular medical advisor.

The abuse of our Free Dispensaries in this city can be stopped. A brother physician who is connected with one of our Free Dispensaries, said to me: "That it was impossible to tell those who were able to pay, from the poor". I will grant that it might be a hard matter for him or me to do so in every case, but the officers of every police precinct and every physician to the poor, know nearly every pauper in their respective districts. Let cards of admission be issued by all Free Dispensaries and sent to physicians, physicians to the poor and every police precinct, to be issued to those who deserve free treatment.

This is only one of the many ways by which this growing evil can be stopped, and there is no denying that it must be, or else some day, the very men who have closed their ears to the appeals of the younger physicians, will have cause to regret the same.

Elmer Sothoron, M. D.

1921 I Street.

The Medical and Surgical Society. At a meeting of the Medical and Surgical Society of the District of Columbia, held at the residence of Dr. Clifton Mayfield, on October 1st, 1896, the following officers were elected for the year:

President, Dr. Francis B. Bishop.
Vice President, Dr. Edwin L. Morgan.
Sec'y and treasurer, Dr. Llwellyn Eliot.
Executive Council, Drs. G. M. Kober, T. N. Vincent, L. Eliot, E. Sothoron and C. Mayfield.

The following program was announced:

October 1. Dr. Mayfield's address. Dr. Atkinson: Case of Poisoning by Opium Smoking with exhibition of the lay out.
November 5. Dr. Bishop: The Lethal Effects of Electrical Currents. Dr. Bovee: The Technique of Uterine Currettage.
December 3. Dr. Carr: The Importance and Treatment of Endometritis. Dr. Carraher: An Illegitimate Birth under peculiar circumstances.
January 7. Dr. Chamberlin: Title not announced. Dr. J. Eliot: The Therapeutic Value of Creasote.
February 4. Dr. L. Eliot: The Restoration of the Sphincter Ani. Dr. French: Title not announced.
March 4. Dr. I. S. Stone: Title not announced. Dr. W. P. C. Hazen: Congenital dislocation of both Knees.
April 1. Dr. Hunt: Competitive examination from a Medical Standpoint. Dr. Kober: Puerperal Infection.
May 6. Dr. McKimmie: Chronic Enlargement of the Lingual Tonsil. Dr. Moran: The Personal Factor in the application of the Forceps.

After the reading of the address of the retiring president, Dr. Atkinson read a paper upon a Case of Poisoning by Opium Smoking and gave an illustration of the method of preparing and smoking opium.

Solvent Properties of Buffalo Lithia Water. A recent number of the New York Medical Journal contains an interesting account of the solvent properties of the Buffalo Lithia Water of Virginia. The writer, Dr. G. H. Boyland, a former professor in the Baltimore Medical College, says that in no department of therapeutics have so great services been rendered to those who are ill as in the treatment of disease by mineral waters. He brings out very clearly that you may take the component parts which a chemical analysis shows to exist in those waters and artifically combine them in precisely the same proportions, yet, such an artificial water will be diminished or reduced to zero in its solvent power. We agree with the author entirely that it is impossible to tear down many of the compounds which nature has formed and expect to receive an equal benefit from the use of some of these parts or all of them re-combined. Nature has arranged the molecules of these elements in a way which cannot be artifically produced. Dr. Boyland relates a series of experiments which he performed to prove the solvent power of this lithia water on renal calculi. Small calculi were placed in separate glasses and Buffalo Lithia Water added. At the end of a few weeks all traces of the calculi had disappeared. But the author makes his strongest points in describing the effects of this lithia water when taken within the body. He says he has prescribed it in many thousand cases, both in this country and on the continent of Europe, and he is satisfied there is no other mineral water which is so singularly adapted to such a large number and variety of maladies. In such affections as lithæmia, and stone in the bladder the solvent action of this lithia water is both prompt and complete. Jaundice is a condition which is quickly relieved by these waters. The author says that there is no remedy so absolutely specific in all forms of albumuniria and Bright's disease, whether acute or chronic.

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TRANSACTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

EDITING COMMITTEE:
W. W. JOHNSTON, M.D., GEO. M. KOBER, M.D., JAS. D. MORGAN, M.D.

(Continued from the November number. Meeting of May 27, 1896.)

Dr. E. A. Balloch presented the following communications:

I. Compound fracture of the skull, trephining and recovery. Exhibition of patient.

II. Mammary cancer, specimen with history.

A. J., male, colored, eighteen years of age, entered Freedmen's Hospital, May 13, 1896, with compound fracture of right frontal bone, the result of a fall from a railroad train. Upon examination, a triangular, ragged scalp wound was found. This was enlarged, revealing a depression of both tables of the skull over an area two and one half inches in diameter, the depression being one inch in depth at its lowest point. One large fragment of bone had penetrated the dura and lacerated the brain. The skull was trephined and the depressed bone raised, when the comminution was found to be so great that it was determined to remove all loose bone and treat the wound as an open one. This was done, about a tablespoonful of brain matter being removed at the same time. The lacerated area was surrounded by a ring of gauze packing and a small gauze drain placed in the centre. Convalescence was rapid, being marked by freedom from pain, headache, fever or disturbance of any kind. Patient was up on the eighth day and has remained up since without perceptible bad effects.

Case II. This specimen is presented to show the parts removed in one of the so-called radical operations for malignant disease in the mamma. It is from Mrs. R., colored, widow, forty-eight years of age, who entered Freedman's Hospital in February 1896, with the following history: Had always been healthy except attacks of asthma. Family history unimportant. In January 1896, soon after she stopped nursing her last child she noticed a small movable lump in her left breast. Growth continued to enlarge painlessly for several years. There was some discharge from the nipple at first. Two years ago the nipple began to retract, since which time the breast has been very painful.

Examination showed the left breast to be very pendulous and the mamma a solid mass, the whole feeling like a stone in a bag. Below and outside the mamma was a second mass about two by three inches hard and painful. Both the breast and secondary mass were freely movable. Nipple was retracted and almost gone. Entire breast was painful when handled. Use of arm much restricted on account of pain. Axillary glands involved. Skin around nipple somewhat adherent; free elsewhere.

The operation decided upon in this case was that proposed by Dr. Willy Meyer (Medical Record, Dec. 15, 1894,) and is as follows:

The breast is circumscribed by a wide skin incision which is continued across axilla, well over onto the arm. This is met at right angles by an incision from the middle of the clavicle. The three skin flaps thus made are reflected, exposing freely the pectoralis major muscle and the border of the latissimus dorsi. The attachment of the greater pectoral is cut and also its attachment along the clavicle. This gives free access to the axilla which is now cleaned of glands and fat and the entire mass of muscles, glands, fat and fascia worked toward the sternum. The pectoralis minor is now cut away from the coracoid process and the entire mass then separated from the chest wall and sternum.

The advantages of this method are:

1. It is thoroughly radical.

2. The parts being removed *en masse* there is no cutting into or bruising of the malignant tissue either in mamma, glands or fat, thus avoiding possible contamination of the wound by cancer cells.

3. The most delicate part of the operation, the dissection of the axilla, is completed first, so that if it becomes necessary from any cause to hurry the operation, this can be done in that part of the wound where it is most permissible.

4. The small arteries entering the breast muscles from the intercostal spaces can be clamped before they are cut.

DISCUSSION.

Dr. James Kerr said: I think Dr. Balloch has omitted the principal part of his operation in not telling us what he did with the dura mater. Where there is a depression of the skull with loss of brain substance and injury of the cortex, we are likely to have a scar remaining in the dura mater, causing irritation of the cortex with epilepsy, or at least with headaches. The result of the treatment of such cases is now very good, and I never expect anything but primary union in head injuries. The proper thing to do always is to suture the dura mater, and in places where the dura is very much lacerated I bring it together and get as good an approximation of its edges as possible. I have adopted Dr. Keen's suggestion of taking the pericranium and covering the lacerations of the dura with it, for if you leave a lacerated dura the remote consequences are likely to be very bad and in order to overcome these I have been using different substances to prevent adhesions. I first tried silver foil, but had to remove it on account of the irritation caused by it. I have not tried gold, but I saw one case in which the gold foil had been in place two years: it caused no irritation, but had to be removed. Last year I operated on a case using silver foil, but it produced irritation, and since then I have used rubber tissue. After the dura is stitched over the wound, or where the dura is so lacerated that it is impossible to cover it, the use of the rubber tissue to cover the opening will do much to prevent the ultimate adhesion of lacerations of cortex and membranes to scalp, which is such a fertile source of trouble.

In regard to Dr. Balloch's second case and the treatment of cancer of the breast, I think the routine practice of removing wide areas of tissue is very important, and I believe is a good practice. It is also the rule, and a good one, to remove the glands from the axilla in every instance, and to remove the pectoralis major, and sometimes even the supra-clavicular glands is a wise procedure. There is a line of lymphatic circulation running along the border of the serratus muscle, so I am in the habit of going beyond the pectoral muscles and removing the fat, connective tissue, glands and sometimes, portions of the serratus muscle in this locality. Even with this very radical procedure you will sometimes be very much disappointed with results obtained.

While it is true that we have done a great deal towards the radical cure of malignant diseases in removing not only the diseased tissue but all the lymphatic glands as well, still, in a certain number of cases, the disease returns at a surprisingly rapid rate in spite of the most radical procedures.

Dr. J. W. Bovee: With regard to the radical operation for cancer of the breast, there are also other chains of lymphatics which have not been mentioned, but, which are very important, viz: those along the internal mammary artery and in the intercostal muscles. When there is an enlargement below the breast, the lymphatics which run through the intercostal muscles are almost sure to be infected. I have gone up above the clavicle, as Dr. Kerr suggests, in order to remove the supra-clavicular glands, but when the cancer goes as high as that, it is impossible to remove all the structures so as to prevent a return of the disease. We cannot remove the intercostal muscles, and we cannot go through the chest and excise all the glands which will be involved.

Dr. Balloch said, in closing the debate: In taking the whole case as it presented itself to me, I concluded that the boy's best chance for recovery lay in treating the wound as an open one. I am much indebted to Dr. Kerr for his suggestion of rubber tissue as a plate. The use of gold and silver foil does not seem satisfactory, and with the next case I shall use rubber tissue.

With reference to the second case, this method of operating gives very free access to the axillary glands. I explored this space thoroughly and found the vessels free from adhesions. The case was of very slow growth, being of seven years duration, and the breast and muscles below it were perfectly free; there were no adhesions to the pectoral muscles or to the chest wall.

MODERN TREATMENT OF SKIN DISEASES.

By T. N. McLaughlin, M. D.

A careful study of the pathology of cutaneous diseases, has exploded the old theory, that these disorders were due to a deposit of morbid material, which was discharged on the surface of the skin, in the form of an eruption, and any attempt to cure the eruption, would drive the disease into the system and affect the internal organs.

This theory was advanced to explain the subsidence of the skin disease with the development of the febrile condition, and the reappearance of the eruption when the fever abated. One of the greatest teachers of dermatology, Kaposi, has forcibly expressed his views on the subject, and Duhring says "it may be safely stated, that the sooner diseases of the skin of all kinds, including the most acute inflammations, are relieved, the better both for the comfort of the patient and for the credit of the physician."

The disease itself and not the symptoms must be treated. It must be remembered that diseases of the cutaneous system of an inflammatory type are liable to undergo sudden changes, and this suggests caution in the selection and use of the remedies employed. The injudicious use of arsenic, the iodides and other preparations will frequently aggravate the disease, by over stimulating the cutaneous nerves. The attempt to drive out the eruption is as reprehensible as the likelihood of it being driven in is absurd. A certain class of diseases will yield to the simplest measures, and it requires more judgment and experience to tell what not to do, than to prescribe a line of treatment which may intensify the inflammation. Another class embraces those cases, which we are unable to cure, and when we make them comfortable, and relieve their deformities it is all, with our present knowledge, we can expect to do. There is still another class, in which both external and internal methods of treatment are serviceable.

Where there is a gouty or rheumatic diathesis, or the eruption is dependent upon diabetes, or disease of the circulatory, renal, nervous or digestive system, constitutional treatment is the only rational means of curing the disease, and preventing its recurrence. Rest is a most important factor in the treatment of those cases, dependent upon a general exhausted condition of the system. This of course means a relaxation from the anxieties and trials of the day, and a proper amount of sleep at night. How often we have seen a change of air, with rest, produce most astonishing results in a short time, when, under other conditions, there was no perceptible improvement.

More attention should be paid to the dietetic treatment. Patients are often told to eat whatever appears to agree with them, when the diet is in itself an exciting cause of the disease. This suggestion is particularly applicable at this season of the year, when so many cases develop from disturbance of the digestive system, caused by eating crabs, lobster, fruit and other substances. Many cases of urticaria, eczema and psoriasis will only yield to treatment after careful consideration has been given to the character of the food, its proper preparation and the quantity consumed. All indigestible substances such as pickles, highly seasoned foods, made dishes, and cheese should be excluded, but each case must be studied and treated individually, and the patient furnished with proper diet lists.

In the internal treatment we should bear in mind that we have no specifics, that the eruption is an external manifestation of some functional or organic disturbances, and that the cause must be found and removed. Certain remedies have long been praised for their efficacy in the treatment of certain diseases. Take arsenic as an illustration in the treatment of eczema. This disease begins as an erythema, developing into papules, vesicles and pustules and frequently presenting all these stages at one time. Now while this disease, as many others, is constantly changing its type, we can readily perceive how much harm may result from the indiscriminate use of this drug, when it is only indicated, in the subacute or chronic forms. This is equally true of the other remedies, we must be certain therefore, that the remedy is indicated, use our own judgment and not be influenced by a fallacy which has been handed down to us.

Arsenic is of service in certain stages of acne, eczema, psoriasis, pemphigus and lichen ruber. It should be born in mind, however, that it is curative only after it has been administered for a long time, that it is slow in controlling, but active in exciting inflammation, that it should not be given in the acute stage of any inflammatory disease. That it should be given while there is food in the stomach and should be well diluted. Its action should be closely watched for toxic symptoms, and the patient should never be instructed to use so many drops, but the dose, either in the form of a tablet or in solution should be given. It should be one of the last instead of one of the first remedies prescribed.

Mercury is of very little service, except in the treatment of those lesions of a syphilitic character. Its value in syphilis is well recognized.

Iodide is chiefly employed in the late manipulation of syphilis. When employed in the early stages it is a source of injury. Of late, potassium iodide has been extensivvly employed in Europe in the treatment of psoriasis, with variable success. Iodoform has been used in the treatment of tuberculosis with little benefit. Quinine, iron and strychnia for their general tonic effect are indicated in a great variety of diseases.

The thyroid gland in the form of a glycerine or desiccated extract has been tried in a number of cutaneous diseases. In a series of cases reported, sixteen in number, all suffering with psoriasis of a chronic type, the results were unsatisfactory. It has been used in cases of lupus vulgaris, psoriasis, ichthiosis and chronic eczema with variable success. It has been a success in a few cases, and this may prompt us to employ it, in those cases, which will not yield to other methods.

Hypodermic injections of arsenic, mercury and antitoxins are employed where it is desired to make a strong impression upon the nervous or general system. Arsenic is employed in sarcoma and lichen plasnus with favorable results. Injections of toxins, obtained from pure cultures of the bacillus of erysipelas, have been extensively used by Coley and others. Of forty-three cases of inoperable sarcoma, treated with the toxins, eleven were what may be termed suceessful; in some, relapses occurred in from one to four years. While some carcinomata have yielded to this treatment, in the majority of cases the results have been unfavorable.

Intracutaneous injections for the purpose of producing local anæsthesia are employed. The method introduced by Schleich has shown, that weak aqueous solutions of cocaine are able to produce complete anæsthesia. After spraying the surface with ether, the injections are made side by side, until wheal-like lesions are produced, over the line of incision. Anæsthesia occurs at the moment of the completion of the œdema. Aseptic precautions should be taken. Solutions of cocaine, morphia, sodium chloride and distilled water of different strengths are employed. The solution should be cold, and the syringe must be aseptic and cold.

Ointments prepared with lard, wax, lanoline or some petroleum product as a base, are more generally used than any other form of local applications. Soothing ointments such as cold cream, glycerine, vaseline,oxide of zinc and diachylon are bland in nature and are used in inflammatory conditions. Oleates of zinc and bismuth are useful in eczema. These ointments are used also as a base, for the stimulating ointments,containing carbolic acid, tar, thiol, ichthyol, sulphur and other drugs.

Plasters are used to bring the remedy in immediate contact with the disease. Where small areas are involved, and for the treatment of syphilis they are very useful. The spread plasters or mulls,introduced by Unna, meet every requirement and are convenient to use. Glysogelatines and the jellies and emulsions are all serviceable as protective dressings.

Protective dressings of collodion and traumaticine, a solution of gutta-percha in chloroform, are used as a menstruum for pyrogallic and chrysophanic acids, also to protect the surface from the air and to prevent friction. Where aristol, iodoform or other antiseptic is added, it is one of the best dressings we have for abrasions, incised wounds and other traumatisms. Caustics are used in the form of a stick solution or paste.

Nitric, acetic, trichloracetic, chromic, lactic and sulphuric acids, also arsenic, caustic potash and nitrate of silver, are employed in the treatment of hypertrophies, warts, epithelioma and lupus vulgaris. They should be used only by the physician, and their effects carefully watched, for it is frequently difficult to limit the action of the caustic.

Baths are used for the purpose of removing the scales, allaying inflammation, relaxing or invigorating the system, and for cleansing purposes. Hot water relieves local congestion, inflammation and nerve irritation. The continuous warm bath is often indicated in the treatment of chronic conditions which will not yield to other methods. Wet compresses applied to inflamed areas afford great relief. Many of the hot springs in this country depend for their virtues upon the high temperature and other peculiarities, rather than upon the salts and gases which they contain. The generous use of mercury and the iodides has unquestionably established a reputation for the hot springs, which are renowned for their efficacy in the treatment of syphilis. The temperature for prolonged baths should be from 90 to 100 degrees.

Soothing baths are prepared by adding bran, starch, linseed from one to three pounds, to a tub of thirty gallons of water. The substance may be acted upon by hot water in a vessel, strained through a coarse cloth, and added to the bath. Alkaline baths in cases of urticaria,in chronic eczema and psoriasis are useful in allaying the itching and irritation; the carbonate and bicarbonate of soda or borax being used. Sulphur baths are best prepared by using from two to four ounces of sulphide of potassium. Salt baths containing ten pounds of salt to a tub of water are useful in urticaria, psoriasis, eruptions of hot weather, and even in acute eczema, where fresh water would only serve to intensify the inflammation, from one-half to one pound of salt to a tub of water sometimes acts as a sedative. The bath should be as warm as can be comfortably borne.

For therapeutic purposes hard soaps of soda and potash or soft soaps are used. The hard soap is used as a base for the medicated soaps, and for cleansing purposes. Spiritus saponais kalinus is prepared by mixing two parts of soft soap to seven of alcohol, and is employed for the purpose of removing crusts and scales and as a stimulant to the skin. It is a mild caustic and should be used cautiously. It produces a roughness of the skin which can be relieved by vaseline. Where the skin is sensitive or inflamed, soaps should be selected with greart care, or withheld entirely. For toilet purposes a superfatted, neutral soap should be used. Strong perfumes are frequently added to soaps to conceal their impurities. Pear's unscented soap and medicated Vinolia are bland, unirritating and in every way desirable for general use. Medicated soaps such as ichthyol, sulphur, Packer's tar, naphthol, corrosive sublimate are useful in many skin diseases.

Powders are useful where there is much hyperæmia, in certain stages of eczema, erythema and diseases of the sweat glands. Corn starch, arrow root and rice flour form a basis to which the oleates of zinc and bismuth, boracic and salicylic acids, magnesium, talcum and other substances are added. They should be free from grit, and reduced to as fine a powder as possible. They protect the surface from the air, from friction and absorb the fluids. The stearates are useful and readily adhere to the surface.

Electricity is of the greatest utility in the treatment of inflammatory conditions in the subacute stage. To promote absorption where there is a thickened condition of the tissues, and to improve the general nutrition in eczema it is very efficacious. In acne vulgaris the faradic current relieves the hyperæmia, promotes absorption and by promoting nutrition checks the suppuration. In simple acne it is beneficial. In herpes zoster and herpes iris, after the acute symptoms have subsided it relieves nerve tension, reduces the inflammation and restores the tissues to a normal condition, and prevents a recurrence. In seborrhea and alopecia it is one of the most serviceable remedies we have. In the removal of superfluous hairs it is the only permanent remedy we have. The other depilatories, barium and lime remove the hairs temporarily, but the effect produced by the electrical needle is permanent. The patient should be placed in a comfortable position, and the surface should be on a level with the eyes of the operator. A good light, good eye-sight, and a little dexterity will enable you to perform this delicate work in an easy manner. A certain number of the hairs will return, but it is rarely necessary to operate more than twice on the same gland. It sometimes happens that the removal of the large hairs, appears to stimulate the growth of the finer hairs, but this seldom occurs, and the same line of treatment would be indicated. The negative pole is the one to which the needle should be attached, this is introduced into the hair follicle and the circuit is established by the patient grasping the positive electrode. In a few seconds a frothing occurs at the aperture of the follicle. No force should be used in removing the hair. It should come away readily, with the root attached. If there is any effort required for its removal, the needle should again be employed.

The time required to produce this effect is from fifteen to thirty seconds, governed by the size of the hair and the strength of the battery, about eight cells of a galvanic battery being required. About ten per cent of the hairs return. It is rarely necessary to remove many hairs at a sitting. With proper care abscesses are not apt to occur and there is very little scarring. It is distinctly valuable in the treatment of nævi, warts, moles, hypertrophies, small fibromata and keloid. The galvano-cautery is serviceable in the treatment of lupus, nævus and other new growths. It must be used cautiously, for there is difficulty in regulating the depth to which cauterization may extent.

Sodium ethylate is an excellent remedy for the removal of these vascular growths. A ten per cent freshly prepared alcoholic solution, should be applied by means of a glass rod. A little vaseline smeared around the surface will protect the normal skin from the caustic. The depilatories are caustics, which are mixed with warm water forming a paste, which is smeared over the surface. It dries in from five to ten minutes, when it is brushed off and the surface after being washed is anointed with some simple ointment. This method removes the hairs by burning them off even with the surface, or just within the follicle. They soon begin to grow again and the treatment must be repeated.

Conclusions—We should be careful to ascertain what line of treatment has been employed, for the remedies prescibed for the relief of the disease are frequently a cause of the eruption. The peculiar idiosyncrasies displayed by certain patients, is a point worthy of being remembered. Do not let us follow any routine line of treatment, but study each case individually, and when we prescribe let it be appropriate for the pathological condition which exists, and watch it closely for the sudden changes in the character of the eruption which so frequently takes place. Our results will then be more satisfactory; our treatment will be founded upon a scientific basis, comfort to the sufferer will be obtained, and we will have the credit for our work and the knowledge that we have done right.

DISCUSSION.

Dr. J. C. McGuire said: We are too apt to fall into the error of saying that certain remedies are good for certain diseases, but an ointment or a drug which would be good in one stage of eczema might be harmful in another. Our treatment should vary, therefore, with the exact pathological conditions in each. With regard to Piffard's salt baths, I do not like them, especially in cases of eczema, for when there is an abrasion of the skin the salt baths would be not only painful but harmful. Nor do I see how electricity can de good in seborrhœa or eczema. Seborrhœa is a functional disorder of the sebaceous glands and as there is no infiltration I do not see how electricity can be of benefit. From the time of Galen to Hebra there was a firm belief in the "humoral doctrine", that is, that certain blood conditions would cause manifestations of cutaneous diseases. So there was a belief in the power of certain medicines to drive in or drive out skin efflorescences, but as the essayist says such ideas are no longer believed in; especially since Hebra produced every phase of eczema artifically. Though there are some physicians, even specialists, who still have faith in the diathetic doctrine, that is, that certain constitutional conditions, hepatic, rheumatic, etc., are the chief etiological factors in nearly all skin diseases. It has been implied that the study of cutaneous diseases is of minor importance; that, at any rate, it would only be a matter of a few weeks for any physician to become a full-fledged specialist. I would refer those who hold to such an opinion to Unna's latest contribution to dermatological literature, "The hysto-pathology of diseases of the skin". There are more than 1,500 pages devoted to the pathology of these diseases alone.

Dr. J. H. McCormick: There are two methods of treating skin diseases, one empirical, or treating the disease *per se*, the other treating the pathological conditions. The latter is the only rational way. What we do in one stage of the disease might be harmful in another, but if we know the pathology of the disease we have some ground to go upon in our treatment. Among the many valuable agents mentioned by the essayist, he has omitted to refer to the knife. I am a great believer in the use of the knife, and in pus eruptions they should be treated just as abscesses in other parts of the body. Dr. Hyde has devised a special apparatus for opening up these small abscesses or pustules, using afterwards an antiseptic dressing according to the nature of the case. I believe that scarification is one of the best methods we have at our disposal for the treatment of eczema.

Dr. Kober expressed surprise that the dermatologists had said nothing about the bacteriology of the skin, especially as the more recently published works on skin diseases are prominently drawing attention to this subject. If it be a fact, that many of the cutaneous affections are of microbial origin good effects might be expected from the local use of germicides.

Dr. McGuire: The reason I did not refer to it, is because I believe it is run into the ground. Unna says that acute eczema, seborrhœa, psoriasis, etc., are caused by bacteria, but this statement is not accepted by nine-tenths of the American dermatologists, and I refer Dr. Kober to a late issue of the Cutaneous and Genito-Urinary Journal, giving a discussion on eczema in the New York dermatological society.

Dr. McLaughlin, in closing the debate, said: It is necessary to study every case of skin disease individually, and try to understand the cause of the existing condition and treat it accordingly. In the chronic type of eczema, electricity was employed to stimulate the blood supply, relieve the congestion and improve the general condition. In regard to its use in seborrhœa, its application was simply for the purpose of stimulating the glandular tissue, and bringing about a general reaction.

MEETING OF JUNE 3, 1896.

Dr. S. C. Busey, President, in the Chair.

SPONGE GRAFTING IN THE ORBIT FOR SUPPORT OF ARTIFICIAL EYE.

Dr. E. Oliver Belt exhibited a patient on whom this operation had been done and in his paper called attention to the fact that after an eye-ball has been removed and an artificial eye inserted very frequently it is not as prominent as the good eye, and that this *sunken appearance* attracts attention at once to the fact that the eye is artificial. To remedy this defect had been a problem for ophthalmologists for years.

One of the most satisfactory operations heretofore practiced was that known as Mule's operation, which consists in the evisceration of the contents of the eye, and the insertion of a hollow glass globe in the sclerotic. This is sewed in, and proves fairly satisfactory, but there was some danger of the globe being broken, and occasionally the stitches come out and the globe escapes. There is also the risk of sympathetic ophthalmia where the entire eye-ball is not removed. To obviate these difficulties and at the same time secure a full orbit he devised a method of sponge grafting.

The operation is a very simple one and is performed as follows: The eyeball is removed by the ordinary method under strict asepsis. After all hemorrhage is arrested the socket is washed out with formalin solution,one to 1,000, followed by sterilized salt solution. A globe of fine, soft, sponge about three-fourths the size of the eye-ball (previously sterilized in five per cent formalin solution and rinsed in the salt solution) is then inserted into the socket, or capsule of Tenon. The conjunctiva is brought together and sewed with rat-tail sutures. The eye lids are then closed with compress and bandage. In a few weeks the sponge is filled with new tissue,which in time becomes firm, solid flesh, making a full orbit and a fine support for the artificial eye. The sponge fibres are apparently absorbed.

He had performed this operation in five cases with fairly good results in all, but union of the conjunctiva has not been firm enough to prevent some of the stitches from breaking or cutting out and the wound gaping, and in future cases to relieve this strain on the conjunctiva and to obtain good motion of the eye, he thinks of uniting the opposing recti-muscles with rat-tail sutures, and then the conjunctiva over that, by the purse-string or sub-cutaneous suture. By this method he hopes to secure union by first intention, good motion of the stump, and a full orbit. There seems to be no danger from infection of the sponge for in two cases the eye was removed for panophthalmitis. He believes that this operation has not only advantages over other methods in recent cases, but in old cases, when there is a sunken appearance of the artificial eye, the socket might be reopened and a sponge inserted,

In making his investigations he found that while Prof. D. J. Hamilton, of Edinburgh, practised sponge grafting for old ulcers in 1880, and a few other physicians have tried it since in conditions where skin grafting was indicated, medical literature made no mention of sponge being used, in the manner referred to in his paper. The paper appears in full in the Medical News, June 27, 1896.

DISCUSSION.

Dr. W. K. Butler said: It has always been the aim of ophthalmologists to get a movable stump for artificial eyes, but I fail to see that we get more of a stump or more motion in this than by the ordinary method.

Dr. Kleinschmidt said: He did not understand what was meant by sponges becoming organized. He thought it was correct to say that organization was brought about by the sponge, but the sponge itself was, in the end, absorbed.

Dr. C. W. Stiles asked what kind of sponge was best for the purpose.

Dr. Isidor Bermann asked what became of the sponge after it became organized.

Dr. C. R. Dufour said: The motion in the eye of this patient was not as perfect as others which he had seen in cases in which the eye had been enucleated by careful dissection, leaving as much as possible of the conjunctiva in the orbit; he also thought that sponge grafting might increase the danger from infection when nucleation was done for panophthalmitis.

Dr. Belt agreed with Dr. Kleinschmidt that to speak of a sponge becoming organized might be an unfortunate term. The sponge seemed to form a net work to support the newly formed tissue, and this new growth was thus maintained. Hamilton did state that after awhile the sponge itself was absorbed. In reply to the remarks of Dr. Butler and Dr. Dufour about the motion of the eye, he stated that in the present case the patient had not worn the eye fifteen minutes, for he had just put it in before presenting her, and perfect motion was never obtained until the eye had adjusted itself. The main point which he wished to bring out was the filling up of the socket by this method. The operation was not yet perfect and might be improved upon. There is no reason why this operation should prevent good motion of the eye. As to the infection, of which Dr. Dufour thought there was danger, two of his operations had been on cases of panophthalmitis. This may have been somewhat risky, but he had the patients under observation and could have removed the sponge at any time if signs of danger had occurred. As none did occur in these cases it seems that we have very little to fear from infection. With reference to Dr. Stiles' inquiry about sponges, he went to a drug store and picked out the best and softest surgical sponge he could find.

Dr. Stiles stated that he had asked the question because he thought the sponge known to zoologists as *Euspongia officinalis mollissina* would probably be the best variety for the purpose.

THE ALKALOIDS OF ANHALONIUM LEWINII (MESCAL BUTTONS), WITH NOTES UPON THERAPEUTIC USES.

By D. W. Prentiss, A. M., M. D. and F. P. Morgan, A. B., M. D.

[ABSTRACT.]

The study of Anhalonium Lewinii is of comparatively recent date, the subject having been brought to the attention of the medical world, in 1888, by Dr. Lewin* of Berlin, who published at that time the results of his observations upon the drug. In 1894, Drs. Lewin and Heffter† of Germany, reported the results of further study of the subject. In 1891, Mr. James Mooney of the U. S. Bureau of Ethnology, in a paper read before the Anthropological Society of Washington, first brought to public attention the remarkable ceremonial use of the plant by the Kiowa Indians and other Indian tribes, among whom he had been conducting researches for some time.§ In 1894 he brought back to Washington for examination a large quantity of mescal. This was given over to Mr. E. E. Ewell of the Department of Agriculture, for chemical analysis, and to the writers for physiological and therapeutic test.

A full description of Anhalonium Lewinii, the plant from which the alkaloids under consideration are derived, and the physiological action of the mescal buttons as determined by our experiments upon man have already been published.‖ ¶

In 1888, Lewin subjected the mescal buttons to analysis and succeeded in obtaining an alkaloidal substance, to which he gave the name *anhalonine*, and to which he ascribed the chemical formula $C_{12}H_{15}NO_3$. Mr. Ewell*, who has succeeded in obtained anhalonine in a pure state, describes it as a white, strongly alkaline substance. It crystalizes from aqueous solution in prismatic, sometimes tabular, crystals of the rhombic system. It is soluble in a large quantity of water, and is unusually soluble in alcohol, chloroform, benzine and petroleum ether. Its melting point is 77.5° C., and it can be sublimed without decomposition. It forms salts with ordinary acids.

Anhalonine hydrochlorate, which was used in our experiments with the first alkaloid, is a white, odorless substance, forming needle-like crystals. It is soluble in water in the proportion of two parts per 100. The solution is very bitter to the taste. The hydrochlorate is also soluble in alcohol. It melts at 250°–255° C., with decomposition. It rotates the plane of polarized light to the left. Lewin describes an amorphous as well as a crystalline hydrochlorate, but Mr. Ewell believes that the former is but an impure hydrochlorate.

The physiological action of anhalonine upon guinea-pigs, and other small animals has been investigated by Lewin and Heffter. Lewin found that in these animals the alkaloid produced at first a primary collapsed condition, which was followed by an increase in the reflex excitability, and, if the dose administered was large enough, convulsions which resembled to a certain extent those produced by strychnine. The action of the drug, so far as these experiments would indicate, is somewhat analogous to that of strychnine. The lethal dose was found to be 0.16 to 0.20 gm. per kilogram of body weight. These results we have verified by a series of experiments upon guinea-pigs in the laboratory.†

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*Archiv. f. exper. Path. u. Phar. 1888, XXIV, 401. Also, Therapeutic Gazette, 1888.

†Dr. A. Heffter, Archiv. f. exper. Path. u. Phar. 1894, XXXIV, 65.

§See also J. Mooney, Therap. Gazette, Jan. 1896.

‖Therap. Gazette, Sept. 1895 and Jan. 1896. N. Y. Medical Record, Aug. 22, 1896. Journal of Assoc. of Amer. Phys., 1896.

¶Since this paper was read, Dr. S. Weir Mitchell, presented before the Amer. Neurological Asso. a paper upon the Physiological Effects, upon himself, of Fluid Ext. of Anhalonium.

*Journal of Amer. Chemical Soc.. Vol. XVIII, No. 7, July, 1896.

In order to ascertain the action of anhalonine upon man, one of the writers took the drug in progressively, increasing doses daily, up to 0.20 gm. without any appreciable effect. As this amount is nearly four times the quantity of anhalonine contained in the crude drug administered in the experiments previously reported, it is evident that anhalonine cannot be the active principle of mescal buttons, or even a potent factor in the production of their effects.

A second alkaloid has also been obtained from anhalonium lewinii§ and was called by Heffter alkaloid B. This for convenience, we shall call *mescaline.*

Mescaline hydrochlorate is a white substance forming tabular crystals. It is much more soluble in water and alcohol than in anhalonine hydrochlorate. We have conducted a series of experiments upon guinea-pigs to determine as nearly as possible the characteristic effects of mescaline.

These effects were widely different from those of anhalonine. The minimum lethal dose of mescaline in our experiments was found to be 0.12 per kilogram, whereas Lewin found the lethal dose of anhalonine to be 0.16 to 0.20 per kilogram. While both alkaloids in large doses produce convulsions, those of mescaline are different in character from those produced by anhalonine. As already stated, the convulsions of anhalonine somewhat resemble those occurring in strychnine poisoning. The convulsions produced by mescaline more closely resemble those caused by non-oxygenation of the blood. It is also evident from these experiments that mescaline has no influence upon the heart as a depressant, even when administered in fatal doses. When given hypodermically it acts to dilate the pupil. No such effect was obtained by dropping a five or ten per cent solution of the hydrochlorate into the eye. It appears to depress the muscular system and the respiration. In its constitutional effects, mescaline much resembles cocaine, and the similarity in action will at once become apparent in comparison with the effects of the latter drug upon the lower animals.

From the mother liquor left after the separation of anhalonine and mescaline, Mr. Ewell has succeeded in obtaining a *third alkaloid*, entirely different in its chemical and physiological properties from the two already considered. To this alkaloid he has given the name *Cactitetanin.* The *hydrochlorate* of *cactitetanin* which was the salt used in our experiments, is white or of a slightly yellowish color. It forms nodular groups of radiating needle-like crystals, which are readily soluble in water and alcohol. The taste of the crystals is acrid, and slightly bitter, with a persistent after-taste. Its reaction is neutral.

Space does not permit of a full report of our experiments to determine as far as possible the physiological action of this alkaloid.‖ Rabbits, guinea-pigs and frogs were used, and the results obtained were briefly as follows:

Cactitetanin is much more powerful than either anhalonine or mescaline, and differs from them also in its physiological effects. Its lethal dose in the animals above mentioned is 0.02 to 0.03 per kilogram of body weight. Its most marked physiological effect is the production of increased reflex excitability, and, if the amount given be sufficiently large, reflex tetanic convulsions. This effect is produced by action through the spinal cord. Chloral hydrate directly antagonizes this effect of the alkaloid, in small doses modifying the increase in reflex excitability, and in sufficiently large doses counter-acting it entirely. The symptoms produced in rabbits, guinea-pigs and frogs appear to be identical with those produced by strychnine.

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†For full report of experiments see N. Y. Med. Record, Aug. 22, 1896.

§Dr. A. Heffter: Arch. f. exper. Path. u. Phar. 1894, XXXIV.

‖For full report of experiments see N. Y. Med. Record, Aug. 22, 1896.

The action upon the respiration and heart appeared to be entirely secondary to its effects upon the muscular system, and the degree of involvement of the muscles of respiration. The breathing was absent during the tetanic convulsions and more rapid than normal during the interval of quiet, as was also the heart. No marked effect upon the pupil was found.

Therapeutic uses. The conditions in which it seems probable, that the use of mescal buttons will produce beneficial effects are the following: In general "nervousness", nervous headache, nervous irritable cough, abdominal pain, due to colic or griping of the intestines, hysterical manifestations, and in other similar affections, in which an antispasmodic is indicated; as a cerebral stimulant in neurasthenia, and in depressed conditions of the mind—hypochondriasis, melancholia and allied conditions; as a substitute for opium and chloral in conditions of great nervous irritability or restlessness, in active delirium and mania, and in insomnia caused by pain. In the last condition it acts to produce sleep, not as a hypnotic, but by relieving the cause of the insomnia. In full physiological doses it produces insomnia, but in therapeutic doses it does not have this effect. The following cases in which this drug was used may be mentioned briefly:

I. Gentleman, aged fifty-five years. Chronic bronchitis with asthmatic attacks. Much distressed by an irritative cough which kept him from sleeping. A piece the size of a pea from the center of a button was administered in the afternoon, to be dissolved slowly in the mouth. The irritative cough was speedily relieved. He took a second similar dose at bedtime and slept well through the night, which he had not done before for a long time. He returned to his home in New York and has kept up the use of the drug with continued relief. In a letter received from him recently, he states that he has improved very much, being able to sleep all night without rising, which he had not been able to do for two years; and that, although he has no need of it on some days, he carries a piece of a button in his pocket constantly, as its use relieves the tickling in his throat at once, and gives greater relief than any other remedy, which he has ever used. It appears to have no curative effect—merely relieves the irritative cough.

II. Gentleman, principal of high school, aged twenty-five years. Neurasthenia of six months standing. The effect of the drug in this case seemed little less than marvellous. Three buttons were administered within an hour. This was followed by the characteristic color visions of the drug, and relief from the bodily and mental fatigue with which he had suffered for six months, and he declared that he was "himself again, cheerful and happy." On the next day, and for several days thereafter, he continued to feel the beneficial effects of the drug. He has continued its use, in doses of one-half a button, when he feels it to be necessary. It invariably relieves the sense of bodily and mental fatigue.

III. Lady, aged thirty-three years. Nervous prostration. The drug was administered in this case as in the last, but in smaller doses, with a marked beneficial effect. Mental and physical exhaustion were relieved and power to work was increased to a marked degree. There was no reaction.

IV. Lady, aged forty-nine years. Chronic phthisis with facial neuralgia, and catarrh of pharynx, larynx and bronchi. The fluid extract of anhalonium was administered with beneficial effect. The irritative cough was relieved to a marked extent, the spells of coughing being less frequent, and less violent and prolonged. Although she has been taking the drug but a comparatively short time, she has suffered much less than formerly from the facial neuralgia.

The following cases were reported by a gentleman of a western state. The drug was administered under the supervision of his family physician.

V. Gentleman, aged fifty-six years, large and strong physically. "Softening of the brain," onset dating back about a year. He was under the care of his two brothers who were physicians in Kansas, and was at times violent, and required the constant attendance of a physician and two nurses. In an attack of violence, opium in the form of laudanum and morphine was given, commencing on Thursday, until the following Sunday, without beneficial effect. Upon Sunday at 2 p. m., he was given a teaspoonful of tincture of anhalonium. A teaspoonful was also given every half-hour from 6 to 9 p. m. At 10:30 the patient went to sleep and awoke at 7 a.m., Monday, in rational condition. He felt so much improved that he left the next day for his home in Texas. The course of the original disease was not influenced by the drug, and he died a few months later.

VI. Sister of above-mentioned gentleman reporting cases. "Very low and out of her head." One of the physicians above referred to used chloral to quiet her, and, this failing, administered tincture of anhalonium. It quieted her in a few minutes and she slept well and long. It seemed to be the turning point in her illness, as she fully recovered.

The same gentleman reports that his wife formerly used to take the tincture for nervous headache, and that it always relieved her. She has them so seldom now that she does not use it.

The following preparations are suggested:

Extractum anhalonii (500 per c) 0.20 to 0.30 gm (3 to 5 grains).

Extractum anhalonii fluidum (100 per cent). Dose, one-half to one gram, (ten to fifteen drops).

Tinctura anhalonii (10 per cent.) Dose, four to eight grams (one to two teaspoonfuls).

Anhalonium (in form of buttons or powder). Dose, one-half to one gram (seven to fifteen grains).

The doses of these preparations may be increased until effect is produced.

The taste of the liquid preparations is very bitter, but may be disguised by a suitable vehicle, such as a mixture of fluid extract of licorice, and elixir of yerba santa.

Anhalonium leownii (mescal buttons) should not be confounded with the intoxicating drink used by the Mexicans and others. This drink is the fermented juice of one or more of the species of agave.

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MEETING OF JUNE 10, 1896.

Dr. S. C. Busey, President, in the Chair.

INTRA-PERITONEAL RUPTURE OF THE BLADDER; RECOVERY AFTER LAPAROTOMY, by Dr. James Kerr.

I desire to present to the society two cases of ruptured bladder, one extra-peritoneal and one intra-peritoneal. The latter case I have not been able to find very much to my regret. It was published in the Annals of Surgery, December, 1893, and is I believe the first successful case in America. When last seen the patient was well and suffering slight, if any, inconvenience from his accident.

The second case, although not an intra-peritoneal rupture is deserving of attention. There was a very extensive injury to the pelvic organs and to the bones. The symphysis was separated and comminuted on one side. The separation amounted to from one and a half to two and a half inches. The muscular attachments to that part of the pelvis were completely detached except the external oblique to Poupart's ligament.

The bladder behind and the genitals in front were separated from the bones, forming the front wall of the pelvis. The suprapubic space and the inguinal region were infiltrated with extravasated urine. The peritoneum was opened in the upper part of the incision and found intact and closed. The bladder itself was drained by a Trendelenberg tube and the wounds in front and behind the pubes packed, and the detached muscles sutured to the periosteum of the pubes. The symphysis was with some difficulty approximated and wired and the patient made a complete and uninterrupted recovery.

INTUSSUSCEPTION: PROTRUSION OF INVAGINATED BOWEL FROM THE ANUS.

Case of Dr. J. Ford Thompson: reported by Dr. S. S. Adams.

A white boy, aged thirteen months, was brought to the Children's Hospital on June 5, 1896, with about four inches of bowel protruding from the anus; the protruding intestine was covered with blood and intensely congested.

The following history was learned: Some days before, the child was taken with symptoms resembling those of enteritis. There was a mucous diarrhœa which speedily became bloody and was accompanied by great tenesmus. This tenesmus today culminated in a prolapse of the rectum, (at about seven o'clock) and for three hours and a half the parents, and finally a physician, worked to reduce it but without avail. It was afterward asserted by the parents, that earlier in the day the prolapse had occurred and another physician had reduced it.

On admission the child's napkins were covered with blood and the bowel was swollen and livid. The sphincter ani was in a state of tonic rigidity and resisted all attempts to force the bowel into its place.

Cracked ice was applied for a few moments and the bowel was then gently returned, and a T bandage and compress of aseptic gauze applied to retain it. Milk was given at 11 p. m. but was immediately vomited.

June 6. Child lies with eyes half closed and is extremely restless, throwing himself against the iron bars of his crib but not crying much; the motion is so uncontrollable as to require padding of the crib-sides. His breath is fetid, his mouth dry and tongue coated white; is thirsty and taking liquids with avidity, but soon vomiting. His rectum still has a continual oozing of blood. His temperature has risen to 100°. Pulse more rapid.

June 7. Still vomits everything taken. The child is very restless. It has become necessary for the nurse to hold him continually in her arms for fear of his injuring himself further. The facies is anxious, the complexion is muddy, the pupils dilated. Careful manual examination of abdomen revealed a long, solid but elastic, sausage like tumor in right hypogastric and inguinal regions. The vomiting has been darker in color and very offensive. Blood still oozes from his rectum which has, however, been packed with sterilized gauze. His eyes are sunken and the child is rapidly emaciating.

June 8. Child some what brighter and vomiting not so frequent. Operation ten a. m. Child was chloroformed and a laparotomy was performed, the incision being about three inches long on the right side over the site of tumor; this disclosed an invagination of the ileum into the colon, the mass presenting at the anus being really invaginated bowel. The mass was tightly glued together by adhesions and was of the size and consistence of a rubber bicycle tire. There was great lividity of the bowel and interference with its circulation; the weak state of the patient and adhesions forbade further interference and it was accordingly returned and the incision closed. Although the patient recovered from the immediate effect of the operation, in spite of stimulation with whiskey and strychnia, he died of exhaustion at three p. m.

Autopsy: The body was covered with bruises, due to blows against the sides of the crib. Abdomen was somewhat distended. Examination of intestine confirmed what was found at the operation and showed the invaginated gut protruding at the rectum. The mesentery of the bowel involved was dragged also into the mass and its vessels were prominent and dark colored; peritoneum about affected area was dry, sticky and light adhesions were present.

On further examination by Dr. D. S. Lamb, of the Army Medical Museum, the specimens were found to consist of a large portion of the colon and ileum, namely eighteen inches of the ileum and a corresponding portion of the colon being invaginated into the remaining colon. The invaginated portion was much swollen; the uninvolved part of the tract of the ileum shows some enlargement of Peyers patches and solitary follicles.

HYGIENE OF THE EYE.

By Clarence R. Dufour, M. D.

Dr. Dufour called attention to the disastrous effects of hereditary syphilis and the various inflammatory conditions of the retina, choroid and cornea resulting therefrom. He next took up the subject of ophthalmia neonatorum, which is responsible for a large percentage of blindness, and stated, that owing to the increasing efforts of physicians this disease is becoming fortunately less frequent, and that by the adoption of the Crede method of dropping a two per cent solution of nitrate of silver into each eye of the newly born infant, and scrupulous cleanliness to avoid reinfection, this affection can be prevented. He also made a strong plea for early and prompt treatment in the prevention of the baneful effects of purulent ophthalmia, or iritis, keratitis and other occular diseases. Attention was called to the fact that undue exposure of the eyes to the bright sunlight, or the glare of gas or lamp light, dust and atmospheric changes, are often the cause of impaired vision, in young children, and that at the age at which they begin school, the eyework should be regulated by their physical development. The causes of eye-strain and its consequences in school-children were fully pointed out, and an examination of the eyes of all children at the time of their entrance to school and supervision of these organs as the pupils progress and reach the higher grades, with proper regulation of studies, strict attention to the sanitary requirements of the school-room, as regards light, desks and position of the scholars, were earnestly recommended. The far reaching effects of myopia and hyperopia, and their correction by properly adjusted glasses were pointed out, and the paper concluded with the recommendation, that a clause be inserted in the medical bill, making it a penal offense, for any but a graduate of medicine, and one who can pass a satisfactory examination in practical refraction, to examine, prescribe or fit glasses to the eyes of the public. (The paper in full appears in the Journal of the American Medical Association, August 29, 1896.)

DISCUSSION.

Dr. E. Oliver Belt: In regard to the correction of errors of refraction by opticians, I think that the family physician should advise all patients under forty or forty-five years suffering from defective vision to have their eyes tested by an oculist. About seventy-five per cent of these cases should be tested under a mydriatic, and no optician has the right to use a mydriatic. If they have never had eye trouble up to that period of life, and age is the only factor, then they could probably select glasses themselves.

ABORTIVE TREATMENT OF QUINSY.

By Isider Bermann, M. D.

The customary treatment of quinsy, or angina phlegmonosa, consists in waiting until the abscess is formed and then opening it with an incision through the soft palate. This waiting is not pleasant and there are many cases where the patient suffers tortures, is unable to sleep, cannot eat or drink, and frequently his life is endangered. For some time I have been treating such cases, with very good results in the following way: A probe, preferably of pure silver, bent to the proper angle, is inserted into each of the lacunæ as deep as it will go, and a certain amount of force is used pulling the tonsil in every direction and producing a slight hemorrhage, while the probe is turned in all directions, but more especially upwards where the abscess always forms. This treatment gives immediate relief to the patient, so that he is enabled to follow his usual avocations and to eat and sleep. It is repeated whenever the patient is in pain, and the result is that no abscess forms; the œdema of the uvula and larynx disappears after the first application; the fever also leaves the patient and the attack is over within, at the latest, three days. I use the probe of pure silver because it is very flexible and can be disinfected in the flame, this is of importance in order not to infect the tonsils.

Follicular tonsillitis will also yield to this treatment. It is more beneficial if the probe is armed with some salicylic acid. In order to get the acid deep into the crypts I have had this instument (showing it) constructed.

DISCUSSION.

Dr. J. J. Kinyoun: I would like to call attention to a new remedy which is nothing but an ordinary gelatine and formal in powder under the trade name of Gtulol Schleich. It is an ordinary grayish, granular powder without odor or taste, and has this peculiar property, that when brought in contact with living tissue the cell has power to decompose it with the evolution of gas. Dead matter will not decompose it and set free the formaldehyde. It is claimed by those who have used this powder that in inflammatory processes, before necrosis has taken place, the process can be aborted in every instance within twenty-four hours. It has just occurred to me, that this powder might be of use in the treatment of cases, such as Dr. Bermann has described, and I suggest its use as I am more and more convinced from laboratory experiments that we have in this remedy an admirable antiseptic.

Dr. J. H. Bryan: Local treatment is not sufficient for quinsy, because it is a general disease, usually due to the uric acid diathesis. and the only way to treat it is by remedies directed to that disorder. I have found salicylate of soda the best thing. When the disease is seen very early, and where it is possible to get antiseptics into the deep lacunæ the inflammation will stop, but it is very rarely that we see patients before the suppurative process has commenced.

Dr. C. W. Richardson said: In the first twenty-four hours it is not always possible to tell whether you are going to have a suppuration or simple follicular tonsillitis, or simply a perenchymatons inflammation of the tissues which does not go on to suppuration. I have seen cases that were thought to have been aborted by local treatment, but I have seen the same treatment fail, so I am inclined to think that those aborted were clearly cases that did not go on to suppuration. I believe that quinsy is a constitutional disease, and that persons with the uric acid diathesis are more susceptible only because they are more susceptible to cold. It seems to me that Dr. Bermann's method is a very good one for the local treatment of follicular tonsillitis, but I cannot see how it can prove of service in a suppurative disease of the areolar tissue of the tonsil.

Dr. W. W. Johnston: When Dr. Richardson speaks of aborting suppurative inflammations I suppose he does not mean the cure of abscesses. Abortion of parenchymatous tonsillitis is not an abortion of suppurative tonsillitis, for it cannot be called this until pus has formed. Inflammation of the tonsil may become a parenchymatous inflammation, or it may or may not end in the formation of pus. Any treatment which can prevent a parenchymatous disease from becoming suppurative is an abortive treatment. Only experience will establish the results which Dr. Bermann claims for his treatment. What interests me in the plan of treatment is the bearing which it has on a theory, which has been advanced as to the cause of this inflammation—that rheumatism is due to a microorganism, and that this is the same microorganism which produces tonsillar inflammation. Dr. Wagner, of San Francisco, claims that by scraping into the tonsil, or cutting it, he has got the same microorganism as from the fluid obtained by tapping a rheumatic joint, which goes to show that there is some relation between tonsillar inflammation and rheumatism. I do not know whether any one has confirmed these observations of Wagner. The evidence of tonsillar inflammation being rheumatic is not by any means clear, and yet if you ask a body of medical men what is the appropriate treatment for tonsillitis they will say the same remedies as for rheumatism. And yet no one can say positively that it is rheumatic in its nature; the faith that is put in salicylate of soda seems to be empirical. It is the popular treatment of today, orginally based on a theory for which there is no adequate proof, but now accepted on its own merits.

Dr. Bermann, in closing the discussion, said: I am not aware that investigations have shown that a uric acid diathesis exists in this disease, but in what way quinsy takes its origin I am not prepared to say.

Memorial Meeting,

WEDNESDAY, OCTOBER 21st, 1896,

IN HONOR OF

Joseph Meredith Toner, M. D.

BORN APRIL 30, 1825.　　DIED JULY 31, 1896.

MEMORIAL MEETING

OF THE

MEDICAL SOCIETY OF DISTRICT OF COLUMBIA

IN HONOR OF

JOSEPH MEREDITH TONER, M. D.

WEDNESDAY, OCTOBER 21, 1896.

The Medical Society met on October 21, 1896, for the special purpose of honoring the memory of Dr. J. M. Toner.

The President, Dr. S. C. Busey, called the meeting to order and said:

Gentlemen:—

It becomes my duty to formally announce to you the death of Dr. Joseph Meredith Toner, who died, July 31st, at Cresson Springs, Pennsylvania, where he had gone to escape the heat of the city and to pass his summer vacation. A few days before my departure from the city, late in June last, I called at his residence to take leave of him. After a brief visit we parted with mutual good wishes for a pleasant and healthful summer vacation, and return to our accustomed places and duties with improved health and vigor. Each of us knew of the other's failing health and declining life, but his genial countenance, cheerful words and cordial manner left no remembrance of the malady, that would surely, sooner or later, prove fatal to him.

I do not recall any circumstance, that freshened my recollection of that final parting, until the news of his voicelsss and painless death came to me whilst sitting alone by the window of my room looking out upon the waves of the open sea as they came rolling in and dashed "high on a stern and rock bound coast," breaking into spray that sparkled in the gleaming light of the setting sun, and then flowed back with the ebb of the surging water into the deep sea. The moment, incident and scene shrouded thought with sadness, and the mental picture of that last parting was so vivid and the words of that last good-bye so pronounced, that it seemed, as if I was in his presence accepting his valediction; and, then, the picture broadened out in expanded outline as the memory revived the recollection of the incidents of forty and one years of an acquaintance and companionship, now broken to waste in the wreck of time.

I have been present on many occasions similar to this; for many, very many members of this society have died during the past forty-eight years, but it has not before fallen to my lot to witness the last tribute of respect to the memory of one, whose friendly and fraternal companionship, I had enjoyed through so many years of professional life. There are but eight others now living, whose membership began before or is coeval with his, who can unite with me in giving expression to our sorrow at the loss of one, whom we honored during life and mourn in death.

Memory is crowded with the incidents and circumstances of four decades and one year of contemporaneous association which bear testimony to his courage, fidelity, sincerity and impartiality. To an attractive address, courteous demeanor and genial temperament were added truth, justice and magnaminity.

It is not, then, surprising that those of us who knew him through so many years should mourn the death of a friend whose nature and character were so richly blessed with the nobler qualities of the human heart and mind. His good offices and friendships were not limited to his life-long companions and co-laborers of our profession, but were as widely extended as his acquaintanceship among the later membership of this society and in the community at large. The positions of trust and honor, to which the profession in this District and in the country called him, to some of which but few can hope to attain, testify to his worth as a man, his standing as a physician, and his fidelity to duty. This society will hold his memory in honored remembrance as the faithful historian, who through years of pains-taking and laborious investigation collated the early history of the profession in this District, from municipal and national records, newspaper publications, family reminiscences, legend and tradition. He verified and arranged these data with such accuracy and completeness in an address delivered September 26th, 1866, that it is now and always will be accepted as the standard history of the medical profession of this District prior to 1866.

Dr. Toner was neither a brilliant man, nor a profound thinker, but he was eminent and conspicuous as a patient, industrious and honest student. These qualities he applied with assiduity and sincerity to every purpose he sought to accomplish. He was eminently and acutely truthful. He had the courage of his convictions with the will and force to maintain them, but always so tempered with magnaminity and forgiveness, that the crimination and bitterness of disagreement and controversy, were either wholly obliterated, or so mollified, that his friendships were purified and intensified.

His social standing and moral character were above reproach. He stood upon the highest plane of etiquette and ethics, but was never an offensive partisan, and set an example worthy of emulation by the most punctilious and circumspect.

His investigations and studies related mainly to medical and local histories, and his favorite fields of labor and research referred to subjects which had been, for the most part, entirely neglected, but which required persistent pursuit, accurate and impartial judgment, a well-balanced faculty of analysis and a keen and quick perception of mistake and misrepresentation. He had so trained his mind, that these qualities constituted the routine method of his thought and brought to his aid such ready and accurate knowledge, that made him a living and walking repository of a vast amount of useful information, sifted down to its absolute value and accuracy. He was not only a "fact hunter", but a hunter of useful facts, and of facts hidden in musty and forgotten archives, obscured by reminiscent and traditional misrepresentation. He re-discovered, re-habilitated, and utilized facts for the common good. It was a phenomenal combination of the habits of the body, traits of mind and trend of thought, that enabled him to accomplish so much that will make the task of those who may follow along the same lines of research and study, easy and profitable.

He has left several curious, unique and valuable illustrations of this peculiar trend of thought and mind, that strikes one at first glance, as the work of one who was busy wasting time for something better to do, but those who know the value of such facts, will testify to his accuracy and originality of method of verification, arrangement and classification. The Medical Register of the District of Columbia; Dictionary of Elevations and Climatic Register; Plan of geographical classification, denoting by symbols the location of the counties of each state of the Union, adopted and now in use by the Post Office Department; Collection of maps and rare records which show the boundary lines of the farms as they existed when this city was laid out, which accompanies the work entitled "Washington in Embryo"; and "Alphabetical list of the names of all persons residing in Washington and District of Columbia, June 1, 1880, aged seventy-five years and more", compiled from the census of 1880 are terse expressions of mental characteristics, original in conception, unique in utility and enduring in history with the name of Toner. I may, with excusable pride, add to these citations his address to the Rocky Mountain Medical Association, delivered June 6, 1877, in which, with most commendable industry, he classified and arranged the facts and data collected from the histories of all peoples and tribes of all ages and times, from which he deduced the following conclusion, set forth in the last two sentences of the address.

"Everywhere and in every age, among all tribes and peoples, whether the most savage or the most highly civilized, may be traced the presence of the physician. He was ever deemed a necessity, and his standing and influence have everywhere been commensurate with his high and honorable office, which won for him in the Apostolic age the appellation of the 'Beloved Physician'."

ADDRESS OF DR. W. W. GODDING.

"I cannot say, and I will not say
That he is dead. He is just away!
With a cheery smile, and a wave of the hand,
He has wandered into an unknown land,
And left us dreaming how very fair
It needs must be, since he lingers there.

* *

"Think of him faring on, as dear
In the love of There as the love of Here.

* *

"Think of him still as the same, I say;
He is not dead—he is just away!"

Life came to our friend, as to all men, as opportunity. But to our friend, more than to most men, life seemed royal in its largess of being; existence an inalienable birth right of enjoyment in his chosen paths of duty and endeavor.

Who, remembering Dr. Toner's warm hand-grasp and countenance beaming all over with welcome in the presence of his friends—a friendship that was all embracing—and the "cup of kindness" that went with it all, who, I say, can doubt that somewhere that welcome still waits for us with its benediction of good will? The source from which such abounding life springs from our human need lies deeper than any grave. You may pile the turf above it, but you cannot stay the fountain of being from springing into everlasting life. To-night I harbor no Sadducean doubts about our friend, he who had none himself. "He is not dead, he is just away."

Yet, when such a life passes in its orbit beyond the limits of our horizon, it is fitting that we take note of its transit, estimate this personality which it was our privilege to know, and consider whether with the passing of that life any lesson abides. Over the hurrying bustle of the arena comes a momentary hush and we stand with uncovered heads looking to the end. No, it is not they who go from us, it is we, ourselves, who need that lesson in our mad following after phantoms.

Of Dr. Toner's professional labors for more than forty years in this community; of his relations to this society and the interest that he always took, in whatever pertained to its welfare, others, whose more intimate association with him in the work has better fitted them to judge of the service than I, will speak to you to-night. But while his professional training, with its pains-taking research and critical study, doubtless left its impression on all his work, so that you might recognize the *tactus eruditus* through it all, there was a great deal to Dr. Toner outside the lines of the diploma, which the Jefferson Medical College gave him in 1853. The careful habits of observation, that were begun by him at the bedside, were extended to include the well nigh infinite vista of all science; those social amenities that won his way as the family physician, these went out in good fellowship toward all his neighbors, irrespective of the metes and bounds of his practice, while the heart, trained to sympathy with his suffering patient, expanded to take in the philanthropies of a whole community.

Plainly he had outgrown the garments with which at the outset, his life was fitted. His profession I count the noblest in the world, but it is of Dr. Toner, the man, larger than his profession, that I desire to speak.

And yet, contemplating a life so ordered, complete and rounded in itself; his entire integrity of purpose and character which made all the aims of that life exalted and noble; the patient industry that never wearied; the ambition that was always worthy; the knowledge of and the interest in everything pertaining to the human, with that child-like trust in the Divine as beyond human knowledge—it is so like looking for salient points on a perfect sphere, that one is at a loss where to begin the estimate.

In the contemplation of a completely rounded life like that of our friend, estimates are likely to differ widely regarding its strong points. What impressed me most in Dr. Toner, was his untiring industry in collecting all the facts from their original sources, and his being satisfied with nothing short of the complete elucidation of whatever matter he might happen to have in hand. This was the habit of his mind, hence the value of his conclusions. It has been said, "Our life is two-fold," and the soul has inner shrines apart where it is not my purpose to enter, but one needed only to stand, as it were, in the outer courts of Dr. Toner's life to know that the shrines of that life's worship was, with all true Americans, at Mount Vernon. It was most loving service that he rendered there.

All this is very near to us now, and the limitations of the work accomplished are not well defined, but as it recedes into history, the name of Dr. Toner will be found closely associated with that of Washington, as of one, whose active life being passed in the city that Washington had founded, and becoming imbued with a sense of the greatness of that man's life as eclipsing all modern names and outranking all the heroic figures of history, had devoted himself to the preservation of everything—no matter how slight or trivial it may seem now—which might aid the future historian in the the exact delineation of the real man, George Washington, father of his country. The historian perchance of that era, when America extending her sceptre from ocean to ocean, and from isthmus to pole, shall take up the empire of the world. Dr. Toner did not himself aspire to the rank of historian. A mighty presence awed him, about whom he was content to gather only facts, a truth seeker amidst well nigh infinite incidents, and the longing of his life was, like that of the German poet, for "more light." Is the longing satisfied now? Could he venture to place himself on the level of a historian? He had seen historians in their pictures of Washington, erase the dental deformities from the upper lip and gloze over the strong lines of the real character with their beatific varnish. Such procedure to his mind was sacrilege. He recalled another historian, who had deliberately emasculated Washington's letters, giving to that great man the advantage of a Harvard culture and a polished diction, as unbecoming to Washington, as dancing pumps would have been to him at Valley Forge. From all this Dr. Toner shrank with horror, and, not as a historian but a collator, impressed like the mediæval monk, copying the Word with the sacredness of the work, he edited Washington's journals, giving the exact text as Washington had left it, down to the dotting of an "i" or the omision of the crossing of a "t", for who was he—or any annalist for that matter—that he should assume to decide what Washington ought to have written?

The result of all this industry and devotion of purpose upon Dr. Toner was that which is inseperable from the individual in all self-denying and earnest work, viz: the inductive force which inheres with high ideals and insensibly lifts self—that too frequent synonym for selfishness—to higher levels, the intellectual development that is the necessary concomitant of such study, "profitable unto the life that now is," and the soul growth born of altruistic effort, which takes hold on the infinite and is not to be weighed in our balances. Aside from this, there remain Dr. Toner's own writings on Washington, the carefully edited journals already referred to, and a collection of Washingtonia, letters of Washington and copies, contemporary opinions, pamphlets, clippings, illustrations. etc., gathered from many sources, carefully cared for in the Congressional Library; a collection that could hardly be duplicated now, and that will continue to increase in value with the years.

Akin to this and illustrating the worth of this work as a collector, having a definite purpose in collecting, is his paper on and his store of biographies, portraits, etc., of medical men of the American Revolution, and later, his attempt to gather some data about the medical men of this country in more recent times. All this now finds its fitting place in the great Congressional Library, along with that munificent gift to the nation, the Toner Library, so rich in the early medical lore published in this country. Only those, who have taken pains to examine these collections, can form any conception of the labor and reseach, that went to their making.

Such collections are invaluable for future studies, but who is left to form them now? Or it might be said, who of us, busy with professional duties would have any time for such work? I suppose, we have all the time there is, and we all found time now and then, to save a clipping for Dr. Toner. But I fear we lack something of his methods and have nothing of his persistent purpose; he who had always pencil and note block by him, scissors, paste pot and scrap book at his elbow, and whose motto seemed to be, "Haste not, rest not." Only to think that those little newspaper clippings falling silently, like snow flakes one by one, through the busy hours of a man's life, should build up for him at last a monument, more enduring than brass and better than hoarded gold.

Dr. Toner though a bachelor, was no recluse. The Washington Monument Association, the Anthropological Society, the Philosophical Society, the Literary Society and probably others that I do not now recall, all claimed him, and in all he was an active member, always welcome. He was a leader in founding the Columbia Historical Society, which met always in his spacious rooms, rooms redolent of so much of historic gleaning. He listened to papers on all sorts of subjects, took part in their discussions and enjoyed them all. The latest thought in science appealed to him and he positively revelled in antiquarian research. The light of the X ray and the slant light falling across some old sun dial were "alike good" to him. He was quick to perceive the artistic excellence of a medal where the die had been cut by a master, he recognized with delight the lines of architectural beauty in cathedral spires and I think the pulsations of light through "Storied windows richly light" found response in the inner harmonies of his soul, but I know that I brought him one moment of unalloyed pleasure, when I secured for him one of the tin foot stoves for live coals, whereby our grandmothers kept themselves warm in the barn-like meeting houses of those days. The "storied window" and the foot stove were both associated in his mind with devout worship.

Such a mind, all embracing, all compelling and yet so genial withal, we shall travel many a sad mile not meeting with its like again.

But it is time, that something was said about the philanthropies, in which his life was earnestly engaged. The mission of the medical profession seems to associate it directly with charities. To the doctor in his daily round of practice, nearer than to that of any other profession, come the words of the Master: "The poor ye have always with you, and whensoever ye will ye may do them good." Our friend had always an ear open to this call, and a warm heart prompting to good deeds.

He was instrumental in founding the Providence Hospital and was for a long time on its visiting staff. He inspired the founding of St. Joseph's Asylum, and was its physician, also of St. Vincent's and St. Ann's. He was on the Board of Directors of the Garfield Hospital, of the Columbia Hospital and for more than twenty years a visitor at St. Elizabeth. As it was my good fortune, to have been associated with him at the latter place, during the nineteen years that I have been its responsible head, I may, I trust, be pardoned for selecting my own field of labor as the illustration of his services in philanthropic work.

This is not the time nor the place to undertake the discussion of the problem of caring for the insane. We may take it for granted, that it involves some puzzling, anxious questions. I believe that there is no field of philanthropic labor where a conscientious, uniform, continued course of "doing for others as you would that they should do to you" under similiar circumstances is more likely to bring its reward in the confidence and respect of a community than this, and yet, I know of none wherein your good, "conscientiously done, is more liable to be evil spoken of". All this Dr. Toner seemed to understand from the start. I think he felt fully the responsibility laid upon us, and for the entire time that we were associated, I found him ever ready to uphold my hands in every movement, looking to more liberal provision or more enlightened hospital service. As president of my board, during the last ten years it was often my privilege to consult with him, and he seemed always to hail my coming with delight. He was interested in every detail of management and construction. He took pains to inform himself of the purpose, the sites, the plans of all new buildings. He seemed fully to comprehend the ultimate aims of our hospital work, its magnitude and its inevitable growth. Our number of patients was below 800 when we began, it was more than 1,700 when he went away. I think the extent of the work and the possibilities of the hospital of the future grew upon both of us as the years went on. There was ever the urgent need of the present with its daily work crowding upon us, but more and more the study came to be, not what would answer and be an evidence of progress in the present, but how broad foundations we might now be laying for that hospital for the future, of which we began to catch glimpses, and dimly to apprehend the work, that would still be going forward there, when Dr. Toner and the present superintendent were only fading outlines in the past. Often when I took to him the rough drafts of plans in their inception, he would enter heartily upon their study, and, not by officious suggestion but by tentative query, he would make known the trend of his own thought, which was always well worth considering. "Could you add a few feet here? Build as large as you can for we shall need it," he would say, and I often profited by the prompting, even while waiting for another year's appropriation to complete it. It was his wont to come often to St. Elizabeth, not alone that he might satisfy himself of the integrity of the work being done there, but because he wanted to see for himself and felt a personal interest in the inmates and their life within those inclosures, inmates to whose appeals he was tender as a father. Yet he was a pretty good judge of children and not inclined to spoil them by over indulgence. I think too, as the years went on and life mellowed, he came to St. Elizabeth's more and more as to a home, whose growth he had watched and that had as it were become identified with his life. Particularly was this so of the building, that bore his name, where in a well appointed hospital of modern type, the sick men are cared for by themselves, a real advance that we had both long desired. The board of visitors reposed all confidence in him as their chief; to the superintendent he was more than friend, he was popular with the medical officers, he was beloved by the inmates; to all he was the good Dr. Toner, and at his coming the very trees, whose growth he had watched so long, seemed to stretch out loving arms with whispered messages of welcome to him. The last day of visit, less than a month before the end, he sat with us on the balcony, while the evening came, and as the sunset light shone through the trees and rested on the green lawns, he gazed long and lovingly at the scene, then simply saying, "It is beautiful here," he turned for one last look, shook hands, and went away. But St. Elizabeth remembers. The druid oaks, growing to a century old, sigh for him; the antique sun dial on the lawn, that was his gift, still marks the shining hours, while the oak and the evergreen that his hands planted there are growing on to keep his memory ever green.

But all this work and industry and research, this doing good to others, although the latter comes very near to being a part of the inner life, are often all but the occupations of a man's hands and heart, not the life itself. What the man himself is He only who made him knows. Yet there are countenances that serve us somewhat as indices. I have looked into faces, that were like creators of volcanoes reflecting only fires from the pit. We now and then see Madonna-moulded features with forms fit to walk with Beatrice in Paradise, but if there was ever a countenance that betokened good will and welcome it was that of Dr. Toner. A paper that should be silent on this genial element of good, would not do full justice to his character. What medical brother of ten years residence in the District within sound of my voice, has failed to be present at at least one of those never to be forgotten spreads of the good doctor on the 22d of February, and assisted the members of the Washington Monument Association in determining the perpendicularity of that obelisk? And it was not confined to medical men. There were generals, judges, lawyers, clergymen, business men, professors, men of letters, young and old—all young that day, and doing willing homage at the shrine of the Father of his Country. It was not the viands, though they did much, it was the charming atmosphere of good fellowship and good cheer running through it all, of which the host was the shining exemplar. It was a genuine philanthropy, and it came nearer to a practical realization of the universal brotherhood of man, than any other altruistic movement, that has come under my observation.

What happier insight into the life of the man himself, than that afforded by the joyous gathering for congratulations on the 30th of April, 1895. Everybody was there, and everybody, layman as well as doctor, brought with him "the medicine of a cheerful countenance."

Some of us were a little anxious about the good doctor, for had not the last 22d of February passed without the usual festivities? A few of us knew that "The keepers of the place were beginning to tremble." But our fears were brushed aside that morning, for there stood Dr. Toner in the midst of congratulating friends, the table spread with abundant viands, the old surroundings, the same beaming countenance and eyes bidding welcome, for this was the seventieth anniversary of his birthday. Three score years and ten, but they had not brought the Psalmists burden of labor and sorrow, for, while the limbs were hardly as supple and the vessels might have lost something of their elasticity, there spoke the heart, warm and young as ever, and the life, ah, that was whole within him, it had neither withered nor grown old; it is only the vesture that time fades and changes at the last. A livelier, happier company it has not been my lot to meet. Standing at that apex of time, what could we wish this soul of hospitallty with such troops of friends, among whom each was happy to count himself, what could we wish him, I say, less than a long life and many happy returns of the day. It was a joyous day that was on the wane before the last guest had departed. And from all this a little more than a year later he went away alone. No friend by him, when hundreds would have been quick to respond to but a single call.

If I was asked to state, what Dr. Toner was in the highest sense I should answer a genial, christian gentleman. In our day of agnostic belief or unbelief, "none of these things moved him." I have mentioned his interest in science and everything pertaining to the human. There was apparently one exception to this; the questions of the occult, the and of the unseen, the debatable country, he did not enter upon these inquiries. At the suggestion of a friend who understood this, I loaned him Hudson's "Law of Psychic Phenomena." He returned it at the end of a week saying, he could not get through it, it did not interest him. It was the world he is living in now, and the daily life, which being lived well became religion, that engrossed him. Living thus, to what world he might hereafter chance to come he was not curious to inquire; he should join "the choir invisible" soon enough without invoking their spirits to come to him through any dark seance.

I doubt if he put much store in ceremonials, though on this I do not speak authoritatively; he seemed only to ask that he might live well enough to be buried at last with the rites of the Holy Mother Church, the Church of Rome, a faith by which his fathers lived, that faith in which his own inner life had found such unquestioning repose. And trusting that, he came to the end.

The heated term of July was upon us, and the doctor decided upon a brief trip to escape its prostrating effect. For some years there had been premonitions, nor had there been wanting the warning of an instant change; the fastenings of the tabernacle were plainly loosening, but its dissolution did not seem imminent nor would he have been dismayed had it been so. With something of regret at leaving the spacious rooms that were so comfortable and homelike with their tables of books and papers, and the old faces looking down from their walls, he said to me at parting: "I shall be back before the September meeting, perhaps in season for the August one if I find it cold there"; and speaking thus he went away.

He found it cold and rainy and one is glad to know that he went down to his brother's in Pennsylvania, saw once more the old surrounding, looked into the familiar faces and had the "welcome home." On the 29th of July 1896, weary and somewhat prostrated by the journey, he returned to the Mountain House at Cresson Springs, Pa., back to the spot where more than fifty years before his professional life began. There were the same changeless hills; they had grown familiar to him then, they came very near now as if to fold him in their embrace at last. Friends who looked on him remarked a change in the face already passing within the shadow, so that it excited no remark, when as the next day drew towards evening, but before nightfall, he rose and saying, "I am going to rest," went to his room.

We knew that he sat down in the arm chair near the window, alone, among God's mountains, and turning his weary eyes to the fading afternoon light, looked out, across the porch, to the wide horizon beyond. And even while he looked, the horizon broadened, for "an angel touched him and he slept." There had come to those eyes the light of a new morning. I know not if he had heard the call and had time to say, "*Adsum*"; and it does not matter, for all his life had been a fitting answer.

It seems sad that of all of us, his professional brethren, who had so often shared his hospitality, who, had we received any notice, would so gladly have followed those remains to their last resting place, not one could be there to do him reverance. Yet, perhaps, it is better so, the official presence had been but empty pomp and ceremonial. Surely our hearts went with him, to where, in that little country church yard at Derry, surrounded by his relatives and a concourse of neighbors, with fitting rites of that faith in which his mother died and he rested, they laid all of our friend that was mortal in the family lot, where kindred dust may mingle and the bells for the vespers call; left him happy in his "rest," for I hold with the poet that

"Happy is he who heareth
The signal of his release
In the bells of the Holy City,
The chimes of eternal peace."

ADDRESS OF DR. C. H. A. KLEINSCHMIDT.

Mr. President;

We meet to-night to pay our homage to the memory of one of the oldest, as he was one of the most widely and best known as well as distinguished members of our society. It would seem almost like a work of supererogation to speak of the many virtues, the noble life, the sterling character of Dr. Joseph Meredith Toner before this body of which he was an honored member for so many years, in this hall, where his wise counsel has always been at the service and to the best interests of this society and the medical profession;here where his kindly, face and cheerful smile lent additional charm and dignity to our proceedings, here where he was honored by all for his many noble qualities of head and heart, honored for his unswerving fidelity to the highest standards of medical ethics, for his exemplary conduct in all relations of life, for his steadfast friendships and utter want of resentment and for his fatherly consideration and interest in the younger members, who ever found in him a ready and willing counsellor and guide. No words, even though they were uttered by the most eloquent of tongues, could add one single touch to the complete and perfect picture presented in the life history and life work of this singularly well balanced man, our late distinguished brother, who exemplified in word, deed and precept the charity, unselfishness and devotion of the true disciple of the healing art. All I may hope to do on this solemn occasion is to gather a few flowers from the garden of memory and place them as a sincere, if modest tribute upon the bier of one, whom to know was a rare pleasure and whose friendship and esteem were boons indeed. While he lived among us, he occupied in many respects a position *sui generis*, for he had chosen for his labors fields that find as a rule but a limited number of cultivators among the busy members of the professicn. It was his delight to hunt facts, statistics, whether directly medical or relating to co-ordinate branches of medicine for him possessed a charm and fascination experienced by but few and there cannot be any doubt but that the results of his labors not only proved of great personal satisfaction to the indefatigable collector but have also been and will continue to be of the highest value to our science, representing as they do, a rich repository in which the future investigator may find information and data collected with infinite care, that can hardly be obtained elsewhere in a like concise and compact arrangement.

Dr. Toner's connection with this society began soon after he had selected our city as his permanent home, for he became a member in 1856, and at the time of his death his name was seventh on the roster of membership. Firmly convinced of the great value and effectiveness of associated effort in the promotion of medical science, and in the improvement and elevation of our noble profession, he at once, as may readily be supposed became an active and energetic co-laborer in our work. It is indeed true that he presented but few papers for discussion; most of his communications to the society being in the nature of addresses, dealing chiefly with statistical and historical matters, though a notable exception is to be found in his paper on Compulsory Vaccination, in which he strongly urged measures by which the entire community could be protected against the loathsome scourge of smallpox. This paper was but one of the many evidences which, during his entire medical career showed him to be at all times deeply interested in preventive medicine, and ready by word and action to aid in every effort made for the improvement of the sanitary condition of our District. Of his addresses mention must be made of that delivered in 1870 on the Vital Statistics of the United States from the foundation of the government to date; and of an address in which he embodied a full and accurate history of medical men and matters in the District of Columbia, from the beginning of the republic. This, one of the most interesting and historically important contributions to our transactions, was delivered on the occasion of the forty-ninth anniversary of our society, and is especially valuable as the only carefully compiled and authentic record of the earlier days of our local profession and therefore indispensable to all who desire information on the changes and progress of medicine among us, and on our professional men for nearly a whole century. It will ever remain an evidence of painstaking and accurate historical research. His work, though less marked in the direction of presenting papers for discussion, was however of the highest value in the direction of an intelligent and fair discussion of the questions brought up in our meetings. In medical debate, he never played the role of a partisan, but that of an impartial reviewer and scrutinizer of the points presented. His words were few, well chosen, and to the point. He had acquired the rare art of knowing what he intended to say and the no less rare one of knowing when he had said it. Especially marked at all times, was his consideration for the contributions of the younger members, they were listened to by him with unremitting attention and discussed with the utmost kindness and good will.

His chief labors, however, were for the advancement of the prosperity of the society and the steady improvement of its work. He justly regarded it as the very center of all medical interest among us and the papers and discussions thereon as one of the best educational means to the busy practioner. He moreover held that the bond of union and the weekly coming together formed a most important agency in affording to our members a just and full appreciation of one another.

To him we owe the first impulses in the formation of a library without which, he felt, an active medical society would be lacking in an essential constituent and he became and remained our first librarian for a number of years. Unfortunately meeting as we do in rented quarters and also perhaps because of want of active interest taken in it by our members, the library failed to grow in the manner hoped and wished for by its originator, who, however for years was greatly interested in obtaining additions for its shelves.

His is also the credit of having first suggested the acquisition of a permanent home. He urged this proposition, that the records might find a safe shelter and be preserved for future use. But above all his motives were to secure in this city, which as he clearly foresaw would at no distant day expand into a place worthy to be the capital of a great nation, a permanent abode for the society, offering the surest guarantee for its perpetuity, development and increased usefulness, not only to the profession but to the community of which we form an integral part. His efforts, made in common with the society's committees, were apparently crowned with success, the new hall reared its stately front in the very center of the city; well adapted in all its arrangements and appointments to all the purposes of a society's home, with a spacious hall provided for our meetings, and with all the accessories needed for our various purposes, including as might easily be believed, ample provisions for the library. But alas, notwithstanding the auspicious inauguration upon which occasion Dr. Toner was the orator of the evening, his and our proud and fond hopes failed of realization and the project finally proved a failure, greatly to the poignant regret of its originator who ascribed as the probable cause of the non-success of the scheme, loose management and excessive outlay, but above all internal dissensions. Many and often were the occasions in after years, when Dr. Toner would express his profound regret at the unfortunate ending of the Medical Hall venture, and time and again would he in referring to it, point to the marvelous growth of the city, to the appreciation of property and to the serious and irreparable loss sustained by the society when it was forced to abandon the ownership of its first and only permanent home.

In the years of local contention and strife succeeding the late war between the states, the society became involved in a very serious feud with the then all powerful Board of Health, and there resulted a schism threatening its very existence, which led to a determined attempt for the repeal of our charter by Congress. During all these troublous times, Dr. Toner was ever a staunch defender of the society's interests, and an active member of the committee which defended the charter before Congress, and did so with perfect success. Finally the heated controversy was carried to the American Medical Association, by the hostile faction, at its meeting in this city in 1870. Serious charges were preferred against the Society, and its enemies endeavored, by all means in their power, to have its delegates excluded from membership in the association. Here again they failed after a fierce struggle, and the Society was completely vindicated of the charge laid against it. This second defeat, however, by no means ended the contention, and it remained for the Philadelphia meeting of the Association in 1872, to finally overthrow the factional opposition, by refusing to admit those who had antagonized the Society and attempted to repeal its charter. Never shall those who composed our small and anxious delegation at this decisive meeting forget the scene, when our then chairman and to-night our honored President, Dr. S. C. Busey, fairly demolished in a logical, convincing speech from the platform, the accussations brought against the society, nor have any of the delegates now living forgotten the exciting scene, when by an overwhelming vote the delegates of the opposition were refused admission, after our chairman had completed his unanswerable argument; neither can we forget the joy with which we hailed a victory, which appeared to have been won from the very jaws of defeat. And among us all, no one had done more in his own quiet, unostentatious, yet effective way, to mould by personal and convincing argument the opinions of the members of the national body, thus preparing the way for success, nor did any of us enjoy the victory more heartily, though perhaps with less outward show of gratification, then our popular and ever cheerful associate, Dr. Toner.

When we cast a superficial glance

only, over the active and energetic part taken by Dr. Toner in the affairs of our Society, when we recall his constant devotion to its interests, it cannot surprise us, that soon after peace and harmony had been restored, he was elected to the honorable position of President, and it goes without saying that he filled the office with dignity and impartiality. In his address on retiring from the Presidency, he strongly expressed himself upon the duties of the officers, urging them to be present at all the meetings, and held, if their absence should interfere with the regular order of business, that such dereliction should work a forfeiture of their official position. Having always set an example of promptness and attention to all that was incumbent upon him, in his official capacity, he certainly was competent to urge a like compliance upon all others in official positions, since without effective and harmonious co-operation, the work of the society could not be properly performed.

As a highly successful biographer, he employed his pen in the interests of the local profession by his carefully written obituaries of deceased members, and these always formed an integral part of the program of our meetings, held in memory of deceased brothers. No one ever approached, much less equalled, him in the painstaking collection of data of personal history that might prove of interest in this connection, and it was a mystery to many how he managed to have his facts apparently within immediate reach whenever the occasion called for them. But no matter how obtained, they seemed to be available at short notice, and were accurate to the last degree. Their collective preservation and presentation but add to the debt of gratitude we owe to the author of these brief biographical sketches.

There was one peculiarity that deserves brief mention, viz: his strong and openly expressed objection to salaried officers. He held, that any member elected to fill a position of honor and trust, ought to serve without compensation and feel amply repaid by the distinction bestowed, no matter how laborious the office might be.

For well nigh forty years our late associate was one of the most regular attendants upon our meetings, generally in his seat when the Society was called to order, rarely leaving before adjournment. Enfeebled health during the last years of his life compelled him to abandon his regular attendance, but he ever continued to manifest the liveliest interest in our affairs.

Summing up his actions in behalf of our Society, it is evident, that they were directed with an eye single to its welfare, to the fostering of medical progress, and to the cementing of closer bonds of union among our members. In times of trouble, when as occasionally happened, personal likes and dislikes might make their unwelcome appearance, or when matters were presented leading to radical and almost irreconcilable differences; it was he, who was ever found on the side of conciliation, who urged mutual concessions, whose quiet, dispassionate speech poured oil upon the troubled waters and aided in guiding the ship through the breakers into a safe harbor.

Ever scrupulously courteous to all, ever mindful of the rights and privileges of his fellows, his own dignity forbade undue familiarity and thus he enjoyed to the fullest extent the esteem and good-will of all. His loss has left a void which it will be difficult, perhaps impossible to fill.

In the greater and more extensive field of usefulness proffered by the American Medical Association, of which he became a member in 1864, he displayed the same qualities of a hard working, ever busy, painstaking and methodical man. He retained his membership without interruption up to his death and he made it a point to attend all its annual gatherings, no matter how far distant the place of meeting might be from his home. He crossed the Rocky Mountains to attend the meeting in San Francisco in 1871, and organized the Rocky Mountain Medical Society composed of delegates who with him had crossed the continent, becoming its president and afterwards editing an interesting biographical memior of the members of this society. The state of his health compelled him to forego the pleasure of attending the Association meetings during the last years of his life. As an illustration of his filial love and devotion for his venerable mother, it may be stated, that he always paid her a visit just previous to the meetings of the Association, leaving Washington a week or ten days earlier in order to spend some brief time with her in the old home in Pennsylvania.

Once a member of the Association, he entered into its work with the energy and enthusiasm peculiarly his own. He was appointed chairman of a committee to consider the advisability of establishing a medical library in connection with it, and as such reported in favor of a plan, which judging from his predilections for and intimate knowledge of libraries, was quite likely his own, and which proved entirely successful in its execution. This report was made after correspondence with the librarian of Congress, having in view the setting apart of a space in the Congressional Library for the occupancy of the new library to be created for and by the Association. Although the librarian of Congress seems to have been in favor of this suggestion made by Dr. Toner, the arrangement somehow failed of consummation, and we find in the report of the first librarian, Dr. Reyburn, that inasmuch as nothing had been done upon the part of the librarian of Congress, to receive the books, Dr. Toner, nothing daunted, had applied to the Secretary of the Smithsonian Institution, and from him received permission to place the collection of books, present and future, in two rooms fitted up for library purposes, or perhaps more correctly speaking, for the purpose of taking care of the books, for unfortunately the rooms, located in one of the towers of the Institution were too difficult of access to make the books available for general use. Dr. Toner was very active in obtaining contributions to the young library in the form of books and pamphlets, by opening correspondence with his host of professional friends in all parts of the country and enlisting their interest and active co-operation, and by this means and by his own donations, he succeeded, practically through his own individual efforts to lay a solid foundation for a library, which, when removed from Washington to Chicago, its present home, consisted of about 10,000 books and pamphlets, and but for him, the National Association might have been for years to come without this valuable and important collection.

In 1875 he reported upon the feasibility of forming an International Medical Association, though he did not by any means fail to see the difficulties in the way of the success of such a magnificent scheme; at the same time, however, he presented a carefully considered plan by which the formation of such an association might be promoted. No action seems to have been taken in this matter, and the International Association never passed beyond the stage of suggestion. He gave the first impulse to invite the

International Medical Congress to meet in Philadelphia during the Centennial year. This international gathering though held as planned proved less productive of scientific results than was hoped for by its friends and promotors, the attendance was limited, and the great central and all absorbing attraction of the Centennial Exposition was by no means conducive to scientific work. A single volume of moderate size holds all its transactions.

His fondness for biographical literature, and his eminent talent for a careful search into the lives of eminent men within and without the profession, made Dr. Toner an invaluable member of the committee on necrology; he was its chairman for a number of years, many of the biographical sketches supplied by the committee came from his pen, while those written by his associates showed ample evidence of his guiding hand and discriminative selection. Not content, as he might have been, with simply presenting the reports of his committee from year to year, he prepared with infinite care an aphabetical index to all the biographical notices contained in the thirty-two volumes of transactions of the association, with reference to year, volume and page. This index appearing as a supplement to the necrological report of 1882, also contains in the role of honor, the names of those who died, martyrs to duty in the yellow fever epidemic of 1878.

When it was decided to establish a journal for the Association, Dr. Toner, as chairman of the board of trustees, presented the first report in favor of publishing the transactions in the form of a weekly journal. For a number of years he filled the laborious and frequently thankless position of chairman of the board, which involved a great expenditure of valuable time on his part, but convinced of the usefulness of such a publication and of its widespread influence for the good of the profession, he ever lent his great knowledge and marked business ability to the undertaking, and thus deserves a great measure of credit for the final success of our journal.

Within a few years after he had become a member, he became filled with the laudable ambition for the presidency and was an avowed candidate at the Philadelphia meeting of 1872, employing every honorable means at his command to attain his end. When one remembers that at that time his membership was less than a decade old, one may well marvel at the boldness of the ambition, but thanks to his great popularity, he came in the nominating committee, within four votes of the successful candidate. In the active canvass undertaken by his friends, the curious rumor found its way among members of the association, that Dr. Toner, long a resident of Washington, must, therefore, have been in sympathy with the rebellion. This feeling was especially marked among many Western members. When informed that this sentiment was being used against his candidacy, he was somewhat annoyed at first, but soon smiled at its absurdity, saying: "You tell them that Toner was born in the Keystone state, I guess that will settle the question of any loyalty to the union." The first failure, however, by no means dampened his aspiration and perseverance, and he was elected at the meeting of 1873 and served in 1874.

He was an active member of the Rush monument committee, which for some years past has been engaged in a zealous effort to raise funds by voluntary subscription from the members of the profession, to erect a monument worthy of the great physician and revolutionary patriot, Dr. Benjamin Rush, in the capital city. Thus far the success has been but moderate, a fact often commented upon and deplored by him.

He also was the first chairman of the "Jenner committee" to perfect the arrangements for a worthy celebration of the introduction of vaccination, to be held in connection with a meeting of the Association in Washington in 1896. Deeply interested in preventive medicine, and venerating as he did, the immortal Jenner as one of the greatest benefactors of mankind, it must have filled him with deep sorrow when the state of his health compelled him to sever his connection with the committee. He felt, however, that the interests of the celebration of this, the most important discovery ever made in medicine, would be best subserved by his yielding to a chairman more able to undertake the labors incident to making the celebration a brilliant success. In his own over-modest words, he called for a more capable chairman. It is extremely problematical whether a better one than himself could have been found for he had made an exhaustive study of the life of the great discoverer and would, had his health permitted, have added some valuable contribution from his pen to the program of the Jenner celebration.

In the battle of the codes, the fierce conflict raging between the adherents of the old code, new code and no code advocates and which seriously disturbed the harmony of the association and of the entire medical profession, Dr. Toner took a firm stand with those who upheld the code of ethics, and at no time did he lose faith in the ultimate triumph of the friends and supporters of this venerable instrument. The final decision in favor of the code was hailed by him with the greatest satisfaction as the victory of conservatism over what to him was a radical departure from safe and sound principles.

His great and continued influences in the Association increasing from year to year with his growing experience and knowledge of affairs and through which he was enabled to take a prominent part in shaping its policies, was however not altogether based upon the clear and convincing manner in which he presented his thoughts and opinions upon the floor or in committee, but to an almost equal degree upon his great popularity, the outcome of his personality, the charms of his genial, open hearted manner, his cheerful sunny disposition, his ready accessibility to all and his tact in making a newly formed acquaintance at once perfectly at ease in his presence. He was, by all odds, one of the most popular and best known figures at the annual meetings, and "there is Toner," "here comes Toner", and similar expressions were heard upon all sides when his face, wreathed in its cheerful, contented smile made its appearance. Said one of the members to me on one occasion: "You District of Columbia people ought to feel very proud of your delegation, for you have three of the greatest men in the profession with you", and among the three names given, Dr. Toner's came first.

His memory for faces, names and incidents was little short of wonderful and formed a potent factor in drawing men to him. It seemed indeed that a face once seen and a name once mentioned were indelibly impressed upon his mind together with incidents connected with them and ready to be called up whenever occasion required. During one of the meetings in a western city a delegate approached him and extended his hand in greeting saying: "I don't suppose you remember me, Dr. Toner, we met at our convention two years ago," and was greatly and agreeably surprised when the doctor grasping and cordially shaking the proffered hand, without apparent hesitation, called him by name and also made inquiries as to the health of his good wife, hoping that she had quite recovered her health, which at the time had given a good deal of uneasiness and that she was now with him.

Or he would, when meeting an old acquaintance, make solicitous inquiries wirh regard to members from the same city, how they were doing, whether they were attending the meeting or if not, what was the cause of their absence. Thus one might recall many instances when Dr. Toner's accurate memory at once gained for him the good will and friendship of those with whom he came in contact.

Did time permit, one would fain follow the inclination to dwell still longer upon his successful and useful career in the Association, but the forgoing sketch, imperfect though it be, must suffice to supply some of the reasons for the prominence enjoyed by him.

When we sum up his long service in the Association, we must become impressed by the conviction, that he was one of those who shape legislation, one of the small number of leaders in every large assembly of men, who somehow sway and mould the opinions of the majority. There was no meeting, but what felt his influence exerted in a quiet, gentle and unostentatious manner, no important measure, but what at some time or other of its different stages of elaboration received some touches at his hands. Whether supporting or opposing a proposition the reasons for his actions were always stated clearly, fully; yet concisely, and he always left the impression upon the minds of his hearers, that he honestly believed in the cause he advocated. And we may safely conclude, that his actions were always determined by what, in his deliberate judgement, were the best interests of the Association, and that his loftiest ambition was to make it prosperous and powerful for good.

As a member of the local Committee of Arrangements for the Ninth International Medical Congress, held in this city, in September, 1887, Dr. Toner displayed in the highest degree his capacity for effective and methodical work, and was second to no member of that committee in his untiring efforts of preparing the way for a successful and satisfactory meeting of the representative men of our profession from all parts of the civilized world. It is a matter of history that the preparatory work for this Congress was greatly hampered by serious dissensions in our profession, that the promoters of the congress were subjected to the antagonism of many eminent men, whose assistance was greatly to be desired, and whose more or less openly expressed hostile attitude was a menace to final success. Notwithstanding all this, however, the committee continued its work, and among them no one was more energetic and hopeful than Dr. Toner, who never lost faith in the final success of the work of the committee and of the congress. The committee's labors extended over a period of more than two years, and were not completed until some time after the congress had become a thing of the past. The record of the numerous meetings shows, that, whoever might be absent, Dr. Toner was always present and that he freely contributed his time, capacities and wise counsel to the cause, and after the adjournment of the Congress he prepared a correct list of the delegates from the cards of application for membership, an entirely self imposed task involving much valuable time and labor.

While the Congress was in session, Dr. Toner's exertions seemed to increase and he was, undoubtedly, the busiest member of the entire committee; he seemed to be ubiquitous, and with his constant coming and going to and fro all points that seemed to require his watchful care, was by all odds its very central figure.

Any one who has ever done duty with a similar committee will readily comprehend that the machinery did not always move along without friction. Opinions upon matters of momentous importance would occasionally clash and Dr. Toner's systematic and careful business methods would now and then cause a somewhat harsh conflict with the rather impulsive though well intended methods advocated by our very energetic and enthusiastic chairman, so that the harmony essential to such a work was at times more or less threatened. But Dr. Toner, profiting from his long and varied experiences in committee work was always on the alert, always ready to conciliate, always preferring, *more suo*, the soothing effects of gentle words whenever they would serve his purpose, but at the same time, when the occasion called for it, speaking his mind with a firmness that left nothing to be desired. But with all his good nature and super-abundance of the milk of human kindness, he could not at all times preserve his temper and many were the occasions, especially after the opening of the Congress, when a less placid and well poised man would have yielded to the temptation to respond to almost vituperous language upon the part of some irate delegate inkind. But though he might plainly show his great annoyance, or even lose his temper, he would almost instantly shake off his temporary ill humor and go on in the even tenor of his way.

In 1871 he instituted the Toner lectures, to encourage the discovery of new truths for the advancement of medicine, setting apart a sum of $3,000, the interest of which with the exception of 10 per cent, was to be paid to the author's of two lectures per annum. But six of these lectures were delivered. It was the object of their founder to stimulate original research upon the part of American medical men especially, and he had in mind as prototypes the special lectures delivered before the College of Physicians in London upon subjects of special and original investigation by eminent physicians that have proved so conducive to the advancement of our science. He hoped to make them a permanent feature in the medical life of Washington and frequently expressed the wish that some of our own men by some original work in any field of medical science would become candidates for Toner lectures, and was greatly disappointed in finding that no one seemed to be willing to enter the lists for this distinction. I am unacquainted with the reasons that caused him to discontinue them.

Dr. Toner's relations to the medical profession in general were very extensive and his correspondence extending in all directions kept him in touch with medical matters and men in every state of the union. He was a living encyclopedia of useful knowledge and was always willing to impart it to others. His office and library were in every sense of the word a bureau of information for all who chose to apply, and he was constantly in receipt of inquiries relating to all kinds of subjects connected with medicine and its allied branches, especially hygiene and preventive medicine, and never failed to respond fully, freely and promptly to all requests for information. As one example I may state that when an invasion of cholera threatened our country he sent on request the books and monographs on cholera in his possession to a number of applicants, and he afterwards was proud to say that in not a single instance had he failed to recieve them back with the grateful acknowledgment of his kindness. His numerous published medical writings were devoted in part to hygienic and statistical subjects and give ample proof of the extensive research of their author, and in part to medical biography and in this latter field he occupied a prominent and commanding position being *facile princips* of American medical biographers. In writing the history of the life of some eminent physician it was ever his aim to be absolutely certain of the correctness of his facts and to treat the subject of his work with absolute fairness and impartiality, that he might "naught extenuate, nor aught set down in malice" and especially did he follow the last part of this injunction. All his biographies were written with a loving pen and their author was ever mindful of the admonition: *De mortuis nil nise bonum.* They will ever remain as authorative contributions to our medical biographical literature.

His labors in behalf of public sanitation were widely recognized and the American Public Health Association honored him and itself by electing him its president, thus gratefully and appropriately acknowledging the eminent services rendered by Dr. Toner in all that concerned the special work of the association.

The greatest and most important work to which he devoted many years of untiring efforts, was the collection of a medical library, composed of the works by American authors, especially of the earlier decades of the Republic, of works dealing with epidemic diseases and with sanitary and preventive sciences; of transactions of medical societies and reports of boards of health, and last, though not least, of American medical periodicals from the earliest to the latest publications. It was his aim to place upon his shelves, complete files of all American medical journals, quarterly, monthly and weekly ever published and those still being published in the United States. Great and difficult as was the task set before him, he yet did not shrink from it, although he was clearly aware of the obstacles and difficulties in the way of a complete success. But he set to work with an eye single to the accomplishment of his plan and by untiring devotion to the end in view realized all he had hoped for in obtaining possession of what represents perhaps the most complete collection of American medical periodical literature in the hands of any private owner, and forming the by no means least interesting and valuable part of his entire library. As a collector of books and periodicals he was one of the best known men in the entire profession, and he combined with his great and enthusiastic predeliction for books, a rare discrimination in their selection, thus becoming a bibliophile in the best sense of the term and not a mere collector for collection's sake. A person not acquainted with his methods was readily misled into the idea that all he wanted was a great number of books and cared little for selection. Such however was not the case. It is true that he would purchase many old books and journals in what appeared to be a haphazard manner, that many were bought in by the pound as so much old paper and this led color to the impression that he used no discrimination in the formation of his library. But anyone possessing an insight into his methods would soon discover that there was a definite plan and design in his manner of bookbuying. Thus his duplicates of books and journals were utilized in the numerous exchanges which he maintained in all directions and served in the end to complete his files by securing in lieu of them such odd number of volumes in which he was lacking. By diligent correspondence with antiquarian book firms through which he was kept advised of any volume in their possession that might fill a gap in the series of any of his journals which he could then secure by exchange or purchase many a desirable acquisition fell into his hands. Frequent visits were also made to local dealers in search of odd numbers and the junk shops very often proved veritable treasure-troves to the enthusiastic collector who drew from them an old tome hidden in out of the way corners covered with the dust and debris of years. It was truly interesting to see the doctor's face light up when an unexpected find brought into his possession a long looked for copy of some old journal that had long since ceased to be published. His was the joy of the true collector and he would frequently select from some file purchased in bulk a volume or two to be scanned immediately while on his way home.

An interesting episode in this search relates to his acquisition of the Confederate States Medical Journal published for some time during the war in Richmond, Va. The doctor had somehow come into possession of a few numbers of this rara avis and of course was very anxious to complete the set, but failed in his efforts to do so. Accident threw me in the way of discovering a considerable portion of the numbers of this journal in the possession of an ex-confederate colleague of mine, and by dint of persuasion I finally induced him to donate them to Dr. Toner. The gratification displayed by the latter when receiving the coveted number was quite sufficient reward for the trouble of securing them.

This magnificent outcome of years of unswerving devotion to a lofty purpose, finally became so extensive and valuable, and its intrinsic importance to the general profession so great, that Dr. Toner, ever mindful of the obligations of the physician to his profession and his medical brethren, determined to present his entire library with its books, pictures, medals, charts and many rara relating to medicine, to some city in order that the student and investigator might obtain a readier access and thus the more fully enjoy the facilities presented by such an eminent educational collection. This magnificent offer, however, contained the proviso, that the city accepting it should erect or provide a fire proof structure for its reception and preservation. Strange to relate, yet fortunate for us, the cities to which the offer was made, declined, because unwilling to provide a fire-proof building as stipulated in the proviso. Finally and happily the doctor concluded to present the accumulated literary wealth in his possession to the library of Congress, of which it now became, in accordance with the wishes of its donor, a separate and distinct part to be cared for in perpetuo under the name of the Toner Collection. When as an integral yet segregated constituent of our great national library it shall have been placed in the new magnificent and palatial home, fronting the national capitol it will repose in the finest, best equipped library building in the world, and for ages to come the eloquent silence of its modest, unpretentious tomes, free from all ornamentation, will proclaim to coming generations the name of the good phgsician, philanthropist and exemplary public-spirited citizen to whose devotion to medical literature it owes its existence.

After having completed his files of American medical periodicals, the doctor conceived the idea of having prepared a subject index of their contents, so that they would become of ready access to the profession. This index was to take the form of a card-catalogue, and was to include not only the original but also all selected articles, no matter how brief they might be, beside this, special care was to be taken of all biographical and necrological data relating to American physicians. Thus *e. g.* a distinction was to be made between an obituary including more or less of biographical material, and a simple death notice. In most, if not all, card catalogues of periodical medical literature, the original articles only are indexed, and the new departure in cataloguing determined upon by Dr. Toner added immensely to the work of preparation, while at the same time the value of the index was greatly enhanced. Dr. Toner cast about to enlist some younger member of the profession with literary tastes and not yet overburdened with practice, for this service. He failed for some time to obtain an amanuensis willing to go on with the work for any length of time, for the magnitude and tediousness of the undertaking very soon acted as a damper to even enthusiastic lovers of medical literature. He finally, however, coaxed (I cannot find a better name), a professional friend, who possessed the necessary requirements, especially that of having a superabundance of unemployed leisure on his hands, into his service, pleading his cause in such a convincing and seductive manner that really nothing remained to be done but to go ahead, with the promise not to give np until the last volume should have been indexed. And Dr. Toner could be trusted to see to it, that there was no lagging in the progress of the work, for if he was a hard worker himself;his assistant very soon discovered that he also possessed, in an eminent degree, the faculty of making others work, and there was truly no rest for either for nearly four years, until the contents of every volume had been duly catalogued, and all the index cards had been carefully arranged in alphabetical order and placed in chests of drawers specially constructed for their reception. As Dr. Toner supplied the cards and whatever set of journals was to be taken in hand next, and also called for the completed sets of cards and journals, there were of course frequent occasions for visits, to make suggestions, and above all to see to it that the work was pushed with proper vigor and rapidity and very little idling could be indulged in. The completion of this work gave him the greatest satifaction, as he now possessed the means of ready reference to the contents of his journal library, from the first publication to the year 1870. To what extent the work on the index was continued afterward, I am not in a position to say.

As an example of the ingenuity of Dr. Toner we have a device which, although not connected with matters medical, deserves mention, although probably known to but few members of the profession. It consists in a ready method of designating the geographical position of the counties in any given state by a simple series of squares appropriately distinguished from each other, which in the postal guide are placed to the right of the name of each county and at a glance show its relative location in the state. This simple device has saved a great deal of time to the postal service and was copyrighted by the doctor and adopted by the postoffice department.

When we, who knew him so well, and esteemed him for those qualities that combine to form the true physician, staunch friend and exemplary citizen, recall the many virtues and noble traits disclosed in the useful yet unostentatious life of

Dr. Toner, part of which is but too feebly reflected in the foregoing imperfect sketch of his relations to the local and general profession, we are profoundly impressed with his forceful character, through which he attained an eminence among his professional brethern attained by only the exceptional few.

Although he did not add to our store of knowledge by new discoveries, his patient and diligent labors in congenial fields of inquiry demanding in an eminent degree analytical faculties of a high order, gave to us a wealth of carefully compiled and reliable data, statistical and historical, which must ever stand as monuments to the industry of their painstaking, impartial and discriminating collector, while his valuable contributions to preventive medicine are replete with thoughtful suggestions.

But whatever estimate we may place upon his literary labors, above and beyond this he has bequeathed to us in his career as a physician and citizen, the precious legacy of a life wholly surrendered to duty and to the welfare of his fellow men and has set an example well worthy the immitation of all.

On the occasion of the seventieth anniversary of his birth, when all his friends vied to do him honor upon his passing of the milestone of three score and ten, he grasped my extended hand in hearty welcome and replied to my congratulations upon an occasion vouchsafed to but few: "Well, on this day I can truthfully say that I am at peace with all the world and that I bear no ill will toward any man in or out of the profession." And to the suggestion that he likewise had no enemy and that every member of our society and of the profession was his friend he replied: "I hope so, I am sure of it." These words bore the very essence of truth in their earnest utterance and I felt that he who could voice them honestly was one whose life had been spent with an eye single to seek and disseminate truth, to advance and elevate our noble calling and whose broad charity recognized but one end, had but one aim, that of doing good to the greatest number. On this memorable occasion there was the same winning smile, the same hearty shake of the hand, the same cordial invitation to his hospitable board, and yet he knew full well that his life was rapidly drawing to a close, knew that an insidious and fatal disease was slowly, yet none the less surely undermining his once vigorous constitution, but there was no suggestion by word or action that our genial host was aware of the more than precarious condition of his health. Sad indeed was many a heart when the parting words were spoken, words that to many of us were the last farewell to the old, true and tried friend and companion. His life was one in which sunshine prevailed over shadow, his happy disposition brushed aside the trifles that so often cause unnecessary worry and trouble, his integrity of purpose always supported him in adversity, his truth, honesty and charity won for him friends in all walks of life, his professional skill and rare business tact had given him an ample competency and his days were free from the cares for the morrow; respected by all who knew of him and his labors for his fellow men, beloved by friends and without an enemy, he could look back upon a long and well spent life and calmly and without fear contemplate the coming of the hour which would summon him hence. And in harmony with his peaceful life was his departure from it, for when death long hovering near, finally claimed him the grim destroyer sent the message, gentle as a zephyrs whisper, upon the wings of quiet dreamless slumber, saying *Come,* and the gentle spirit of the good physician sped upward to the mystic beyond from whence no traveler returns.

"*I hope to deserve to have it written of me that I loved my profession and my fellow men.*" These words, the closing sentence of his presidential address of 1874, foreshadowed with almost propetic intuition the verdict of posterity and the shaft to mark his last resting place could bear no inscription more appropriate than these simple words: *He loved his profession and his fellow men.*

ADDRESS OF DR. J. DUDLEY MORGAN.

It has been my pleasant and fortunate duty in the past few years to be more than usual in the company of our much esteemed and reverend friend and associate. It has been well said of him, that he was prominent in literature, in science, in the practice of his profession and in deeds of charity. What more ennobling epitaph can be written! His generosity was of the sort that made you feel its spontaneousness. There was a fascination in his kind and genial manner, and one always left him with the satisfaction of time well and pleasantly spent. Among us there are many, who will miss his sweet and homelike chats; evenings spent in charming reminiscences, or listing to a carollary of facts of which he was so fond and famous of weaving into a charm of romance. Speaking recently to him of the beautiful and unobstructed view from Mt. Vernon to Warborton, now Fort Washington, he told me that General Washington often stood on that knoll a little to the front of this house and through that forest vista signalled by flag to Warborton. Then their little boats with liveried men would pull out from the shores of the Potomac to bear the invited one to Mt. Vernon or Warborton, or to strike a trade perchance of tobacco, corn or wheat for cattle or sheep or what not.

All things appertaining to the District of Columbia he gave his generous support. He had been for over forty years identified so closely with the history of our city, that it is a universal regret that his last resting place should not be among those, who mourn his loss so deeply, and within the confines of a district with the history of which he was so fond and familiar, and for which he had done so much to enrich and memoralize.

THE NATIONAL

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THE EDITOR'S TABLE.

The Use of Antitoxin. There can be no question but an emergency is at hand and that, more than ever before, we are called upon to decide upon the best method of treating diphtheria. One would be inclined to let the matter rest were it not for the recent articles which have appeared in the daily press. It appears to us that the present status of the antitoxin question is about as follows:

Antitoxin is not a specific for all cases of diphtheria. It is indeed questioned whether it can be called a specific in any case. This is largely because by the time the clinical manifestations of the disease are recognized, the poisons have had such an effect upon the system that it is too late for the remedy to act positively as a specific. It appears, however, that in those cases in which antitoxin is used early in the disease, it is quite as much a specific as is quinine in malarial fever. In the latter case, the drug has a direct effect upon the parasite; while in the former, the remedy exerts its good effects by destroying the products of germ life rather than by attacking the germ itself. In the case of diphtheria it is easy to understand how the poisons produced by germ activity may have under certain conditions such an immediate and overwhelming effect on the system that any remedy would be unable to counteract them.

No one can read the current literature on antitoxin without being seriously impressed, to say the least, with its wonderful action when given early in the disease. In fact it is hard to understand how anyone can fail to be convinced from such reading that antitoxin stands out to-day as the best remedy we have for the treatment of diphtheria. More than this, it is a remedy so powerful that when given early in the disease the mortality is very low indeed. But even here, when we are fighting an enemy of such power, nothing should be neglected which might possibly be of benefit. Therefore, the advocates of antitoxin urge local applications to the nose and throat, and the use of other remedies as occasion demands. When antitoxin is not used early in the disease then the fatality is much greater, and it is a question whether it is vastly superior to other methods, although it has certainly shown its power for good, even under these conditions.

An over enthusiastic friend does as much injury to a good cause as one who shows but little interest. The over-zealous advocates of antitoxin have claimed too much and have, as a result, kept a large number of men from making a more careful study of it.

The conclusion of the whole matter appears to be that antitoxin is the best remedy we have for the treatment of diphtheria; that it is almost a specific when used in the earliest stages; that it is not nearly as effective when its use is postponed; and that we should not trust to it alone but should use local applications and other remedies as occasion requires.

Antitoxin has not been proven to be of sufficient power to warrant our giving it to our patients and then lying back happy and content in the belief that recovery is sure to occur. To fight such a terrible disease requires all the skill we can command and antitoxin is simply a valuable, and we believe the most valuable addition to our resources.

Rights of the Surgeon. A recent decision in the London courts involves a point of much importance to all physicians. A hospital nurse brought action against an eminent London surgeon, Dr. Charles J. Cullingworth, for performing the operation of double ovariotomy, when positive directions had been given not to exceed the single operation at the most. As a result of the double operation the plaintiff felt she must break an engagement of marriage. The question at issue was, Is it a medical man's right or duty to override the known wishes of a patient, even in the best interests of the health or life of the sufferer? Sir Thomas Spencer Wells, Lawson Tait and other leaders in the profession testified that they would not undertake to perform any operation under such restrictions as the plaintiff said she had imposed. The operating surgeon declared that when the plaintiff consented to the operating table, she tacitly consented to anything he thought best. However, he remarked to those about the operating table that he hardly knew what to do; a double operation was certainly indicated, and yet, considering the patient's wishes, the case presented grave and unusual complications. The doctor testified that the plaintiff might have lived for many years, if he had not operated, but, in his opinion, the double operation was necessary for a radical cure. Therefore, he proceeded with the complete removal of both ovaries. The jury brought in a verdict in favor of the defendant. Yet it must be admitted that the surgeon was not altogether free from blame. The mistake was in undertaking an operation under such restrictions; but having agreed to the conditions, according to the plaintiff's testimony, it is certainly questionable how far these wishes and directions should be set aside.

Pay In Advance. The physicians of Portsmouth, Ohio, have adopted a resolution to the effect that all persons who are known not to pay their physicians must hereafter pay in advance for professional services. Physicians have contributed names to this list and each member of the society has a common list for reference. In commenting on this an exchange urges that the good work may pass rapidly along.

But when The National Medical Review comments on the above it says that it believes such action is greatly beneath the medical profession. If we are in the business simply for the dollars and cents, if we can look with an eye of steel on suffering humanity, if we can study the face of a child suffering intense pain with the thought only of the gold and silver to come to us, then we had better quit the business and open a saloon on the nearest corner. We would be ashamed to belong to a body of men who had no higher ideas of life. To be sure the doctor and those dependent upon him must live, and in order to do so the doctor's bills must be paid. But this "pay in advance" theory is something which does not belong to "the noblest task by Heaven decreed".

No Excuse Now. Now that the "ins" are no longer in fear of swelling the ranks of the "outs" there is no reason why they should not begin to think of settling their accounts. The excuse has been that if the Bryan faction won they would all be decidedly "out," but now that the civil service rules will continue in force there is no longer any danger. It is the doctors who are "out" but it is now time they should be "in". Of all the cities in the world Washington should feel the hard times the least and yet we believe it is one of the cities which has suffered the most. It makes one smile to hear the government clerk lamenting the hard times, whereas, on the one hand, his salary is as great as ever, while, on the other, there never was a time when he could purchase things at such a low figure.

Examination Questions. The Board of Medical Examiners of North Carolina has propounded some questions which cannot be answered in a word at least. We select two, from the department of Physiology:

Name the seven digestive organs and the functions of each.

Give the physiological arrangement and offices of each department of the ear.

There are a number of questions about like these. They are nothing like as fair questions, nor do they make anything like as good a test as those given by our own medical board a few days since.

Large Signs. The physicians of this city, as a rule, are to be compliment on the size of their signs. There is no effort whatever to display an amount of brass, plate-glass or tin. But we have noticed a few exceptions to this desirable rule. There are some instances where the doctor has succeeded in so ornamenting his house and office that it is impossible to approach them from any direction without being greatly impressed with the fact that there is danger of being lassoed and drawn within. Somehow one feels that if he entered such an office he must undergo the experience of Bunyon's Christian who had to pass between the roaring lions.

Cleveland as a Leader. A recent number of the Medical Brief contained an editorial on the present administration which was highly laudatory in every way and gave President Cleveland a rank with the greatest men this country has ever produced. The following number of the Medical Mirror took up this editorial and spoke strongly in opposition to it. Thus it appears that even in one great city of the west there are precisely opposite opinions between two great journals. Although the present administration is precisely opposite our own political preferences, yet the fact is well known here in the capital city, that at the time the President made his contract with the "great moguls of Wall street", otherwise known as the Bond Syndicate, the United States treasury was within three days of bankruptcy. In other words, if the demands which were being made upon it with persistent regularity had continued at the same rate for seventy-two hours longer the Secretary of the treasury would have been obliged to have declared that he had nothing in the vaults with which to meet the demands. President Cleveland has done some things we have not liked, many things we have liked, but it is hard to conceive of a greater act ever performed to our country than this one so generally condemned, for it saved us from national disgrace.

Special Lectures. Commencing the third week in December, Dr. F. Fehleisen will give a course of lectures at the School of Medicine of Georgetown University. Dr. Fehliesen is known as the discoverer of the streptococcus of erysipelas and as one of the assistants to Von Bergman. The lectures will be upon the surgery of the kidneys, tumors of the mammary gland, and surgery of the rectum and large intestines. Members of the local profession are invited to attend.

Number of Persons to one Physician. According to Polk's Register there is one physician to about every 613 of population, for the whole United States. Of all the states and territories of the United States the District of Columbia takes the lead in the ratio of physicians to population, this being as 1 to 264.2. The nearest to this is California, which is 1 to 383.4; then Colorado, 1 to 449.

We notice that the recent paper by Dr. Irving C. Rosse on "The Neuroses from a Demographic Point of View" has been translated by Dr, Audrey, and appears in a recent number of the Archives de L'Anthropologic Criminelle.

An exchanges notes the death of a man who cradled wheat two days in succession at the age of 106, and then died from over-heating himself. If it had not been for this great indiscretion he might have lived to have made a record the coming winter in chopping wood.

Over forty physicians came before the examining board as candidates for the regular army. As day after day passed so the number rapidly diminished until when the final test came but few were left. Of the whole number only six of them were successful in meeting all the requirements. One of these six was Dr. Louis P. Smith of this city. Dr. Smith has been detailed to work in the bacteriological laboratory of the army until the early spring when he will be given a post.

WASHINGTON, A WINTER RESORT. No detailed description of Washington as a city need be attempted, further than to state that it furnishes more attractive entertainments as a winter resort than perhaps any other city in the union. The winter climate is an uncertain one, as experienced by the writer during nine years' residence. Some winters, in fact most of them, average delightful weather; yet there are many disagreeable days and occasionally a winter of severity, when cold weather and a frozen river remind the northern visitor very forcibly of the weather he left behind him. Washington is practically at sea level, the Potomac being a tidal river to a point some miles above the city. The mean annual temperature is 55° F.; mean precipitation, forty-three inches: per cent. of cloudiness for winter, fifty-eight; and relative humidity, seventy-two per cent., bringing the city under class one. Washington is not a desirable winter resort for pulmonary invalids.—*Medical Record.*

COMMUNICATIONS.

SOME NEW PREPARATIONS FOR NOSE AND THROAT.

It is my desire to call the attention of the readers of this journal to some of the formulas of Dr. W. F. Chappell of New York, as used by him at the Manhattan Eye, Ear and Throat Hospital. The base of each formula is the Oleo-Steare-ate of Zinc. The Iodized is serviceable in dry and atrophic rhinitis and ozena. With Camphor and Menthol, it is a cooling and therefore valuable in hay fever and coryza. With Ortho-Chlorophenol, it is valuable in syphilitic ulcerations and ozena. With Tannic Acid, it is effective in nose-bleed and catarrhal conditions characterized by yellow discharges. These medicines can now be procured at a few of the drug stores of this city. We would also call attention to the new "aseptic injector". It is made on the principle of an eye-dropper, only it is much larger. A small amount of the medicine is drawn from the bottle into the douche, then by holding the head back, with the glass placed in the nostril, slight pressure on the rubber with slight inhalations, will cause the medicine to pass back and form a coating over the mucous membrane which will remain from three to six hours. The price of this douche is only 25 cents.

S. B. MUNCASTER, M. D.

PROCEEDINGS OF THE OPHTHALMOLOGICAL AND OTOLOGICAL SOCIETY OF WASHINGTON CITY.

The monthly meeting of the Society was held Nov. 9th. Dr. S. O. Richey, president. The following papers were presented:

Cycloplegia, by Dr. W. K. Butler, in which the writer summarized the usual course of the disease as: First, diphtheria; second, poisons, such as lead, alkaloids of the belladonna group and ptomaines: third, syphilis and diabetes; fourth, severe disease of the central nervous system, as tabes; fifth, contusions. The history of two cases was presented showing diphtheria as the course of one and an undiscovered etiology of the second. Treatment consisted in removing the cause if possible and relieving ihe effect by the use of eserin or pilocarpine reserving a plus lens for the chronic cases.

Dr. Loring in discussing the paper spoke of the use of oleate of veratria in such cases.

Dr. Richey presented the history of an anomalous case of central blurring of vision from a peculiar congenital elevation of veins about the disc.

Dr. Butler presented a patient suffering from an obscure disease of the fundus for examination by the Society.

THERAPEUTIC NOTES.

NO USE FOR LITMUS PAPER. No longer any need of being annoyed with the little pieces of blue and red litmus paper. One of Tyree's Litmus Pencil's is the thing. You can carry it as easily as an ordinary lead pencil and it will last you until you lose it. For sale everywhere for 25 cents.

ALL ARE FAMILIAR WITH IT. A recent writer in the Therapeutic Gazette says: "It is hardly possible that any physician in the country is not familiar with and a prescriber of Fellow's Hypophosphites." Dr. Milner Fothergill says, "The combination is an excellent one, the best yet made. It is a happy thought."

"Three Remedies of great Value." This is what Dr. P. N. deDuboeay of Georgia, says of Papine, Bromidia and Iodia. He prescribes the first to control pain, the second for insomnia and the third as an alterative.

Failure from Substitution. Dr. P. J. Gerlich, of Washington, writes to the Medical Brief an experience he had recently with substitutes. He prescribed Sanmetto but did not get results. He afterwards learned that the druggist substituted palmetto. As soon as he could correct the error he began to get the desired effects.

For Acute Rheumatism. Salophen has been satisfactorily administered by an immense number of clinical investigators as the safest and surest remedy we have for acute rheumatism. Fever is reduced, severe pain is relieved, heart complications are less frequent under its use and the period of convalescence is greatly shortened.

To Check Hemorrhage. If you do not want an abscess to follow your subcutaneous injection or ergot then use Ergotole. We have used it many, many times and have found it non-irritating and prompt to produce the physiological effects of the drug. Notice that Sharp and Dohme will send you a sample free if you will mention this journal.

To Relieve Pain. Dr. W. F. Waugh, of the Illinois Medical College, says that within the last year he has prescribed Ammonol with great success for all severe forms of nervous headache where the intense pain demands quick relief. You have the coal tar product for controlling the pain, while the ammonia prevents any depression of vital forces.

Special offer to Physicians. We have been authorized to state that to any physician who has not as yet made a trial of Gray's Glycerine Tonic Comp. Formula Dr. John P. Gray, that a full pint bottle will be forwarded by the proprietors, express prepaid, on receipt of 35 cents in stamps to defray transportation expenses. Address The Purdue Frederick Co., sole proprietors, 52 West Broadway, New York, mentioning this journal.

Congestion of the Liver. Dr. F. W. Barthrick of Battle Creek, Mich., reports a case of enlarged liver which was so sensitive that malignant disease was suspected. There were severe pains, constant vomiting, and the outlook was decidedly discouraging. However Peacock's Chionia was prescribed and the patient began to improve and within eight weeks was as well as usual.

Treatment of Diphtheria. In a recent number of Pediatrics is an interesting article on this subject by Dr. W. A. Walker of New York. It is a strong plea for the use of antitoxin. It recommends the highly concentrated serum from the Biological Department of Parke, Davis and Co. This serum is now put up in bulbs instead of in bottles. As it is hermetically sealed it remains perfectly fresh and will keep indefinitely.

Neurasthenia Insomnia. If insomnia be due to exhaustion, over exertion, emotional causes, etc., no matter what other nervous troubles co-exist, Trional is the best remedy. In writing on this subject to a German periodical the author says he prescribes this remedy in tablet form in doses of 1.5 gram on the first evening, one hour before retiring, in a wine glass full of milk. This dose can be diminished or increased to the extent of ½ gram according to results.

Treatment of Typhoid Fever. In a recent number of the New York Medical Journal is an interesting article by C. E. Skinner of New Haven, Conn., on the treatment of typhoid fever. In discussing the question of diet the author says that milk may well be combined with one of the artificial foods of which there are a number that are very good. Some, he says, are excellent and such an one is Just's Food. It makes a food easily digested and is often well borne when other foods are rejected.

An Anti-Fat Produces Flesh. In reporting a case in which Phytoline was used a physician says that his patient was increasing in weight and the increase seemed to be entirely in the abdominal region and lower extremities. He thought this was due to some rheumatic heart affection, and knowing the antirheumatic properties of phytoline he prescribed it. The swelling of the extremities subsided, the abdomen diminished in size, the appetite improved and there was a marked increase in good solid flesh.

ASSIMILIABLE FORM OF IODINE. There are certain alkaloids which act in a somewhat similiar manner to the iodides. The Henry Pharmacal Co., of Louisville, Ky., have combined the most marked of these alkaloids with hydriodic acid and have produced a form of iodine which is assimilable to an unusual degree. Chemical conditions have shown that after taking Henry's Tri-iodides the characteristic reaction of iodine appears in the secretions. There is also the peculiar metallic taste. There is every theoretical and practical reason for believing that this preparation contains iodine in on unusually active form.

BOOK REVIEWS.

PARK'S TREATISE ON SURGERY. By American authors. Edited by Roswell Park, M. D., professor of Surgery and Clinical Surgery, Medical Department, University of Buffalo, Buffalo. N. Y. In two handsome octavo volumes, comprising 1,600 pages, with 786 engravings, largely original, and 37 full-page plates in colors and monochrome. Volume I, General Surgery and Surgical Pathology. Volume II, Special Surgery. Price per volume, cloth, $4.50: leather, $5.50. Net. Lea Bros. & Co., publishers, Philadelphia and New York.

In the September number of this journal we reviewed the first volume of this magnificent work. We can only call attention to the strong endorsement given at that time, adding that this differs from the first volume in that it deals with the whole domain of special or regional surgery. Professor Park has been very fortunate in securing the co-operation of a most representative body of American surgeons. We have here a most complete work of modern surgical knowledge, clearly written and fully illustrated. The price is certainly moderate when the size of the volumes, quality of paper and excellence of illustrations are considered.

A PRACTICAL TREATISE ON MEDICAL DIAGNOSIS. By John H. Musser, M. D., assistant professor of Clinical Medicine, University of Pennsylvania, Philadelphia. New (2) edition, thoroughly revised. 925 pages, 177 engravings and 11 full-page colored plates. Cloth, $5.00; leather, $6.00. Lea Bros. & Co., publishers, Philadelphia and New York. 1896.

The first edition of this work was issued only about two years ago. It at once took a formost place as an exhaustive treatise on one of the most practical subject. This second edition has been thoroughly revised, enlarged and increased in value by the addition of a number of handsome engravings and full page plates in colors. There are but few diseases now so obscure that a chance or guess diagnosis is required. Our methods of physical, chemical and microscopical diagnosis are now so precise that no practitioner is excused for not bringing them into full operation. As a result of these methods we may state that the diagnosis of disease has now reached almost an exact science. The author of this volume has taken advantage of all newly established facts and methods and here presents them in such a clear and comprehensive manner that he has given us a volume of great practical value to both student and active practitioner. To be a most skilled diagnostician we would urge medical students especially to become very familiar with the pages of this volume.

DAVIS' OBSTETRICS. For Students and Practitioners. By Edward P. Davis, A. M., M. D., professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic, Clinical Professor of Obstetrics in the Jefferson Medical College of Philadelphia. In one handsome octavo volume of about 600 pages, with 217 engravings and 30 full-page plates in colors and monochrome. Cloth, $5.00: leathers, $6.00. Lea Bros. & Co., publishers, Philadelphia and New York. 1896.

This is indeed both a work of reference and a text-book. The science and the art of obstetrics are strongly set forth in strict accord with the most modern results of investigation and experience. We notice that particular attention is given to obstetric surgery, which has made such marked advance with the past few years. The principal disorders of infancy are included, as mothers naturally regard the obstetrician as the proper adviser for the infant. The author has had extended experience both as a teacher and as one engaged in actual practice, therefore he is well fitted to meet the demands of a text-book for the student and a work of reference for the practitioner. The work is made especially valuable because of its very complete illustrations, many of which are photographic reproductions.

OVER THE HOOKAH. The Tales of a Talkative Doctor. By G. Frank Lydston, M. D., professor of Genito-Urinary Surgery in the Chicago College of Physicians and Surgeons. Professor of Criminal Anthropology in the Kent College of Law, etc. Sold by subscription only. Sent prepaid on receipt of supscription price. Price in cloth, gilt top, $4.00; price in morocco, full gilt, $5.00. Over 600 pages octavo. Profuely illustrated from the author's designs by C. Everett Johnson. The Fred Klein Publishing Co., Chicago.

When we picked up this book we thought the price was altogether too high, but when we examined the illustrations, quality of the paper, binding, etc., we are obliged to change our opinion. There is something decidedly fresh and altogether unexpected in the style of these illustrations and they alone afford enough interest to warrant the purchase of the book. The account of the good old country doctor is most interesting and pathetic. He certainly has had full justice done him for once at least. The stories are character studies, so truthfully drawn that one can easily apply them to some of his acquaintances at least, for of course the coat never fits the reader! The author says he has written "for the love of humanity". When one considers the expense of such a volume as this we are glad to know that the question of dollars and cents is not an important one, for it will take genuine money to pay the printer's bill in this case and a lot of it. This is one of those books which will be sold much more extensively by subscription than any other way, for it will be hard to resist the purchase of a copy after the eye had glanced through its pages.

A TEXT BOOK OF MATERIA MEDICA, THERAPEUTICS AND PHARMACOLOGY. By Geo. F. Butler, Ph. G., M. D., professor of Materia Medica and Clinical Medicine in the college of Physicians and Surgeons, Chicago, and in the Woman's Medical College of the Northwestern University. 850 pages; price $4.00 net. W. B. Saunders, Philadelphia. 1896.

A physician may be very skillful about diagnosing disease and yet if he does not understand his materia medica all all his knowledge will be in vain. The student generally looks upon this study as even more dry and uninteresting then his anatomy and yet a thorough understanding of each is absolutely essential to his success. In the volume before us we have a clear, concise and practical text book for either the class room or for permanent reference. The physiological action and the therapeutics of each drug are very full. An unusual amount of attention has been given to the pharmaceutical department. The author is well known as a teacher of wide experience, and this fact alone will insure a large sale of the work.

ESSENTIALS OF PHYSICAL DIAGNOSIS OF THE THORAX. By Arthur M. Corwin, A. M., M. D., Demonstrator of Physical Diagnosis in Rush Medical College, Chicago. Second edition, revised and enlarged. Pages 200. Price, $1.25 net. W. B. Saunders, Philadelphia. 1896.

This is an outline setting forth the salient points of the subject. The more important truths are thus grasped by the student, while a great deal of reading is saved if the work be consulted by the active practitioner. Reference is made to the physical diagnosis of some of the abdominal organs and to other parts which are especially related to the chest cavity and its organs.

PRACTICAL NOTES ON URINARY ANALYSIS. By Wm. B. Canfield, A. M., M. D., Lecturer on Clinical Medicine, University of Maryland. Second revised edition. Geo. S. Davis, publishers, Detroit, Mich.

This is one of the physicians' Leisure Library series which Mr. Davis has published for some years. We have here the tried and reliable tests for detecting normal end abnormal substances in the urine. There are a number of illustrations which add to the practical value of this considered treatise. When one considers that 25 cents is all that is necessary in order to secure such a concise and practical work as this, it would indeed be surprising if nearly every physician did not procure a copy, no matter how many exhaustive treatises he might already have on the subject.

PAYSICIANS VISITING LIST FOR 1897. P. Blackiston, Son and Co., Philadelphia. This is the 46th year of the publication of this well-known visiting list. Some minor changes have been made and the cover has been materially strengthened.

THE MEDICAL NEWS VISITING LIST FOR 1897. This familiar book comes to us in a beautiful seal-grain leather binding and is sold for $1.25. As is well known, there are three or four different styles of this book to accommodate a limited or unlimited number of patients. It is issued by Kea Brothers and Co. of Philadelphia and New York.

THE NATIONAL MEDICAL REVIEW.

VOL. VI. WASHINGTON D. C., JANUARY, 1897. NO. 8.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

EDITING COMMITTEE:
W. W. JOHNSTON, M.D., GEO. M. KOBER, M.D., JAS. D. MORGAN, M.D.

STATED MEETING, JULY 6, 1896.

The Vice President, Dr. J. W. Bovee, in the chair.

The minutes of the Stated Meeting of January 6, 1896, were read and approved.

Applications for membership from the following practitioners were read and referred to the Board of Censors: John H. Metzerott, M. D.; Abbie C. Tyler, M. D.; Phoebe R. Norris, M. D.; Thomas B. Crittenden, M. D.; W. R. Maddox, M. D.; Blanche C. Greaves, M. D.; Susan J. Squire, M. D.; A. L. Staveley, M. D.; Walter D. Cannon, M. D.; Adeline E. Portman, M. D.; W. A. Caldwell, M. D.; Chas. Lewis Allen, M. D.; Walter W. Wells, M. D.; Edwin Gladmon, M. D.

Dr. Kleinschmidt, of the committee on the Revision of the Constitution, submitted a report: Dr. Cook moved that the report be printed in such a manner as it shall be deemed best for distribution among the members. Carried.

The Treasurer submitted his report from January to June, inclusive.

REPORT OF THE TREASURER.

Certificate invested, - - -	$1,000.00
Balance January report, - - -	1,268.36
Received, dues, licenses, etc., - -	445.64
Total, - - - -	2,714.00
Disbursed per vouchers, - - -	561.38
Balance, - - - -	2,142.62

On motion of Dr. Kleinschmidt at 9:10 o'clock, the meeting adjourned.

MEETING OF OCTOBER 7, 1896.

Dr. S. C. Busey, President, in the Chair.

The Board of Censors reported that the following applicants were eligible for membership:

Walter A. Wells	Georgetown U.	1891
Edwin Gladmon	National U.	1890
John H. Metzerott	Columbian U.	1891
Abbie C. Tyler	NewEng. Med. C.	1868
Phoebe R. Norris	Columbian U.	1891
Thos. B. Crittenden	Georgetown U.	1895
W. R. Maddox	Jefferson Med. C.	1877
Susan J. Squires	Howard U.	1889
A. L. Stavely	Penn. U.	1888
Walter D. Cannon	Georgetown U.	1890
Adeline E. Portman	Iowa U.	1887
W. A. Caldwell	Columbian U.	1892

Blanche F. Greaves, Woman's Med. Col. Penn., not being a resident of this city, was ineligible. A ballot being had, the President declared that as Drs. Wells, Gladmon, Metzerott, Tyler, Norris, Crittenden, Maddox, Squire, Stavely, Cannon, Portman and Caldwell had received an affirmative vote of at least three-fourths of the members present, they were elected to full membeship.

The President spoke of the steps now being taken to prevent vivisection throughout the country, but more especially in this District. Some concerted action should be taken so as to exert every energy to thwart those pretending to protect the animals at the expense of human beings. He had drafted the following resolutions, which he would submit to the Society:

Whereas, There is now pending in both houses of Congress of the United States, a bill, entitled, "A bill for the further prevention of cruelty to animals in the District of Columbia", which avowedly contemplates the supervision and restriction of vivisection in this District, and

Whereas, It is believed that such proposed legislation will so obstruct and limit experimental research as may seriously interrupt the pursuit and progress of biological and medical science in this District,

Therefore, be it resolvred: That the Medical Society of the District of Columbia hereby invites the bureaux, departments, schools of medicine, and scientific societies hereafter named, to unite with it in the organization of a commission to be constituted of one representative from each of such bureaux, departments, schools of medicine and scientific societies which shall be known as The Joint Commission on Vivisection, charged with the duty of investigation relative to the practice of animal experimentation in this District, and with representation of the constituent organizations before Congress, in such manner as said Commission may determine.

Resolved, secondly: That this invitation be extended to the Bureaux of Medicine and Surgery of the Army, Navy and Marine Hospital Service, Animal Industry, The Medical Departments of the Columbian, Georgetown, Howard and National Universities, and to the Chemical, Biological, Anthropological, Entomological and Philosophical Societies of the District of Columbia.

Resolved, thirdly: That the expenses of the Joint Commission shall be defrayed in equal proportion by each bureau, department, school and society represented in said Joint Commission.

Resolved, fourthly: That the Corresponding Secretary be requested to transmit a copy of the foregoing preamble and resolutions to each of the bureaux, departments, schools and societies named and request their concurrence and the name and address of its representative.

Dr. McArdle moved the adoption of the resolutions and his motion was carried.

SURGICAL ANESTHESIA.

By Wallace Johnson, M. D.

As anesthesia in general surgery is almost exclusively produced by either ether or chloroform, or a combination of these two agents, I shall confine myself to their consideration, and present a *resume* of the present status of this subject.

If it needed any apology for the introduction of this subject to-night, other than its great importance, I would remind you that next week is the semi-centennial anniversary of surgical anesthesia. The first reported case of operation under anesthesia by ether was performed at the Massachusetts General Hospital in Boston, on October 16, 1846, Dr. Morton being the anesthetizer and Dr. Warren the operator. The question as to whether the honor of discovery belongs to Morton, to Jackson or to Dr. Long of Georgia was discussed at the meeting of the Pan-American Medical Congress in this city in 1893.

Three theories have been advanced as to the mode of action of anesthetics. These have been summarized by Dr. Franz Cyron, as:

1. "That anesthetics act upon the blood, especially upon the red blood cells, and through them produce a paralysis of the nervous centers."

2. "That anesthesia arises through an accumulation of CO_2 in the blood."

3. "That the blood simply acts as a carrier of the poison, which has a certain, however fleeting action, of a physical or chemical nature by contact on the central nervous apparatus. The point of action being not on the nerve fibres, but on the ganglion cells, first the sensory then the motor."

These are theories only, and as we are all perhaps equally ignorant of the finer molecular changes brought about by these agents, none can speak conclusively on this point. I will cite a theory advanced by a man who since the introduction of anesthetics has had this under consideration. Sir Benjamin W. Richardson, (2) says: "I am led to infer, that anesthesia always depends upon the same conditions, namely, the suppression of vibrations from the origins or expansions of the peripheral nervous fibres spread out in the membranous structures." "On the whole, I incline to the view that the action of those agents, which destroy pain before they remove consciousness, is primarily on the peripheral system."

One of the most striking features, in the study of this subject, is the remarkable difference of opinion arrived at by different observers on many points. Another, is the very little advance, that has been made since the first few years of their general use; either in adding to our knowledge of their physiological action, their method of administration, or the elimination of the elements of danger.

For example a report of a committee (3) appointed by the Royal Medical and Chirurg. Society, in 1863, over thirty years ago, reads thus: "The strongest doses of chloroform, inhaled through the mouth and nostrils, caused pulse and respiration to cease nearly simultaneously, while the heart's action continued for a short time subsequently."

"Chloroform depresses the action of heart and frequently kills by syncope."

"Ether exerts but a very slight depressing influence on the force of the heart's action."

"In nearly all the cases of death from

ether the respiration ceases for some time before the heart stops."

"The first and most important means of resuscitation is artificial respiration."

"The occurrence during the administration of an anesthetic of sudden pallor, or of sudden lividity of the patients countenance, or sudden failure or flickering of the pulse, or feeble or shallow respiration, indicates danger."

In contrast to the above take the latest writings and investigations. A supplementary report(4) of the Hyderabad Commission in 1894, thirty years after the preceding report, reads thus: "In death by chloroform the respiration always stops before the heart."

In 1894, Gaskell and Shore(4) say that "chloroform directly weakens the heart."

F. W. Hewitt, in Treve's Syst. of Surg., 1895, says: "The most characteristic feature of ether anesthesia however, is the remarkable circulatory and respiratory activity."

"Physiological experiments have shown that the blood pressure falls but slightly whilst the hearts cavities do not dilate as in the case of chloroform."

"When ether is given in toxic quantities to moderately healthy patients, respiratory paralysis ensues, cyanosis becomes marked, and the pulse after a considerable interval ceases to beat."

"The treatment in all cases of overdosage is the same, namely, proceed at once to artificial respiration."

H. C. Wood in Dennis Syst. of Surg. 1893, says: "The face should be carefully watched; any cyanotic appearance denotes approaching asphyxia, whilst an excessive pallor is indicative of failing circulation."

There still exists a great difference of opinion as regards the relative safety of these two agents. Surgeons in hot climates, notably in India, generally prefer chloroform to ether, and assert that it is not more dangerous. In Germany chloroform is given much oftener than ether. In England and the northern part of the United States ether is generally preferred. But in regard to this point in America we are sadly in need of reliable statistics from our hospitals.

The question of relative safety can be answered in two ways, first by statistics and second by the concensus of opinion on the part of the men, who give large numbers of anesthetics, or under whom they are given.

Statistics collected by Dr. Bellamy Storer(5), this year, show that out of 794,141 recorded ether administrations there were forty-eight deaths, or one in 16,544; and of 1,360,069 chloroform administrations there were 432 deaths or one in 3,148. Those who still favor chloroform contend that the statistics are not reliable in so far as not all fatal cases are reported, and further that, with ether, many deaths occur that are directly due to the anesthetic and yet come on so late as to escape the notice of the anesthetizer. They say that chloroform kills at once, whereas ether may be the cause of death occurring from a few hours to several days after cessation of the inhalation. Gurlt(6) in his statistics, recently collected, gives a total of 166,812 chloroform inhalations with sixty-three deaths and three late deaths, or one in 2,527, and of 26,320 ether inhalations with two deaths and ten late deaths, or one in 2,193. For the year '93–'94 he found that of 33,083 chloroform anesthesias there were sixteen deaths and one late death, and of 11,669 ether anesthesias there were two deaths and eight late deaths. That is for chloroform one death in 2,647 and for ether one death in 1,167.

The editor of the Chicago Clinical Review recently sent out a number of questions on this subject to twenty-three active and leading surgeons, and from their replies he concludes:

"1. By far the largest number prefer ether for routine work.

2. Chloroform is occasionally used

by the strongest advocates of ether.

3. The principal reason for preference of ether is for safety.

4. Preference for chloroform is based on comparative facility of action and limited after effects, rather than upon an immediate knowledge of its occasional fatal effects." Only one operator preferring chloroform has had a death in his practice.

5. Of those preferring ether, no less than nine have had deaths from chloroform.

6. Nine never had a fatality from anesthetics.

7. They report a total of twenty-six deaths, seventeen from chloroform and nine from ether.

8. Chloroform is largely favored for children and the aged.

9. Abnormal conditions of the patient call for a selection of the agent. Pulmonary and renal affections throw the balance in favor of chloroform. Cardiac debility favors ether.

Some idea of the relative danger of the two anesthetics may be deduced from a study of their separate effects on the different organs, especially as the choice of the agent to be used must always depend on the individual case.

On the respiratory system chloroform undoubtedly produces the least local disturbance. Ether excites profuse secretion of mucus in the bronchial tubes, pharynx and nose, and of saliva in the mouth. In many cases these secretions are so profuse as to interfere with the continuous administration of the ether. Some observers believe that the œdema of the lung, that sometimes occurs during or soon after ether inhalation, is due to the direct irritating action of the drug on the alveoli. Dr. Poppert(11), who is a firm believer in late ether deaths, is an advocate of this theory. He decribes in detail one case in which death from œdema of the lungs occurred two hours after the operation. In this case the patient was fully conscious and the pulse strong when he suddenly became dyspnœic, coughed a great deal, and ejected great quantities of foamy mucus. Then the pulse became gradually weaker, the patient more cyanosed and great quantities of reddish foamy mucus ran from his mouth, death soon occurring. Dr. Poppert collected seven other cases of œdema of the lung, from ether, causing death after the operation, one as late as seventeen hours and one thirty-two hours after operation.

Another and less disputed effect of irritation from ether is a resulting bronchitis or pneumonia. Some surgeons like P. Bruns(12) attribute these to impurities in the ether. Nauwerk(13), on the other hand, and most observers, consider it an auto-infection arising from tracheal or pharyngeal mucus that is introduced with the inspired vapor. This occurs the more easily owing to the anesthesia and paralysis of the palate, base of the tongue, and epiglottis. In this way inhalation-pneumonia may also follow chloroform, but it is less frequent.

Cough is a frequent symptom in beginning anesthesia and may cause considerable disturbance. Pushing the anesthetic generally stops it.

On the respiratory center chloroform acts as a powerful depressant. Ether also depresses this center as soon as its stimulating action is exceeded.

On the circulatory system chloroform is the disturbing agent, causing a marked fall in blood pressure.

Ether causes at first an increased heart's action that later quiets down, but all the time the blood pressure is increased until very deep anesthesia is reached. As regards the action of chloroform on the circulation we are again confronted with an inexplicable difference of opinion. The report of the Hyderabad Commission reads: "The lowering of blood pressure produced by chloroform is harmless, and cannot be due to weakening of the heart." Drs. Gaskell and Shore(4), who experimented to verify the report of the Hyderabad Commission of 1889, say: "Our experiments show, in our opinion conclusively, that this fall of blood pressure is mainly due to a direct weakening action of chloroform on the heart." Drs. Hare and Thornton(15), similarly occupied, say that they believe the fall in blood pressure is due both to weakening of the hearts action and to paralysis of the vaso-motor center, but more to the latter. McWilliams says that chloroform causes a dilatation of all the cavities of the heart.

On the kidneys the effect of both agents is found to be nearly the same, though ether is generally recognized as being more injurious to kidneys already diseased. In regard to chloroform, Israel found that out of 100 cases, in one-third of all, there was a deleterious effect on the kidneys, lasting from two to three days. Wunderlich found albumin in 11.5 per cent of fifty-two cases. Eisendrath found albumin in thirty-two per cent of seventy cases. With ether more extended observations are recorded. Robert F. Weir(16) in 305 cases found thirty-nine cases or thirteen per cent abnormal after etherization. He quotes Korte as having found only six cases of albuminuria after 600 ether narcoses. Butler in 500 cases found only one case of albuminuria after ether, where there was previously no albumin. Weir concludes that "In the vast majority of normal kidneys, and even in abnormal kidneys etherization brings about no detrimental effects." Eisendrath(17) from 130 observed cases, seventy of chloroform and sixty of ether, concludes that "an existing albuminuria is increased after ether more frequently than after chloroform, but that with urine free from albumin before, albuminuria occurs in a slightly greater per cent of cases after chloroform than after ether; and that the after effects of prolonged chloroform anesthesia are much more deleterious to the normal kidney than are those of ether." Deaver and Frese(16) found the urine normal in only twenty of sixty-three cases after ether. J. B. Blake(17) examined fifty cases and after ether found only eight free from albumin. Becker(18) of Bonn, found from an examination of 233 cases of ether or chloroform narcosis, "that in the majority of healthy persons there arises an acetonuria of varying duration after narcosis."

Nausea or vomiting is generally believed to be more frequent and troublesome after or during ether inhalation than chloroform. In regard to this point Dr. Otto Heusler(19) in Bonn, from an experience of 2,000 ether narcosic says: "that headache, nausea and vomiting, the ordinary consequences of chloroform, are observed more seldom and then only in the first hours." Dr. Emil Rossa(20) noticed in 100 etherizations that vomiting during and after narcosis was less frequent than after chloroform. In a report(21) of the Scandinavian Society of Surgeons in regard to 11,284 cases of chloroform and 1,279 of ether anesthesia, we find that vomiting occurred during anesthesia with ether alone in fourteen per cent of the cases, and with chloroform alone in 10.5 per cent. Vomiting after narcosis occurred following ether alone in twenty-four per cent; following chloroform in large doses in fifty-seven per cent; chloroform by the drop method and preceeded by morphine in only 6.15 per cent. From this report we must conclude, that vomiting occurs with ether more often than with chloroform. Many methods have been advocated for the relief of this troublesome symptom. L. H. Prince(22) of Chicago, from an observation of 1,000 consecutive cases of anesthesia concludes that "Threatened vomiting may be checked in most cases by phrenic compression." Certainly so simple a remedy deserves a thorough trial.

Paul Rosenberg(23) believes that by cocainizing the mucous membrane of the nose, these reflexes could be lessened or abolished. He claims that by this method vomiting during narcosis is rarer and sickness following anesthesia does not occur. Gerster(24) of New York, tried this method carefully in 100 cases, and concludes that "there was less nausea and vomiting, but in about ten cases there were symptoms of cocaine poisoning, one of which was so severe as to require indefinite postponement of the operation. Preliminary injections of atropin have been used for the purpose of preventing vomiting. J. B. Blake(25) gives definite figures on this point. From 100 recorded cases he found seventy-one per cent free from vomiting. And in another series of cases without preliminary atropin injections, he found but forty-three per cent free from vomiting. The method that has met with most success in allaying the vomiting and nausea after ether is the inhalation of oxygen gas after the ether inhalation is stopped. I understand that this has been used to some extent in Washington hospitals and would be pleased to hear the opinions of those who have employed it.

On the nervous system the action of the two agents is nearly the same. "The order of events is the same for both. The cerebral centers are influenced before the sensory fibres of the cord and these before the motor fibres, while last of all the medulla is paralyzed"(28).

Having gone cursorily over the effects of the two agents on the respective organs most affected, and giving due weight to the concensus of opinion and to statistics it would appear that in general, ether is the anesthetic of choice. Yet there are cases where chloroform might better be substituted for ether. From the preceeding this would seem to be the case, first, where there is extensive disease of the lungs, or acute disease of the air passages. Second, in marked disease of the kidneys, and particularly in chronic interstitial nephritis with atheromatous arteries and a hypertrophied left ventricle. Third, in operations about the mouth or upper air passages, especially if the thermo-cautery is to be used near the face. With a view of diminishing the dangers in anesthesia many rules have been laid down for their administration, choice of mechanical devices and various mixtures have been advocated. The oldest of these and one still largely in use is the A. C. E. mixture. Alcohol, chloroform and ether in the proportion of one, two and three. Its administration is the same as that of chloroform, and its action is due to the two agents discussed. The statistical death rate for this mixture is one in 5,550. The latest of the mixtures is that of oxygen gas with chloroform, ether or A. C. E. Its chief advocates so far are its originators, Drs. Markoe and C. S. Cole(29, 30) of New York, and Dr. DeHart(27) of Brooklyn, who has devised a mask for its convenient administration. From their experience they claim besides additional safety, that it allays nausea and vomiting and shortens the period of recovery to consciousness. The time required to produce anesthesia by this method is considerably lengthened. For example, Dr. DeHart(27) says that "pure oxygen should not be used with ether on account of its tendency to counteract etherization and make it a very slow process." Therefore, he dilutes his oxygen with thirty-three per cent of nitrous oxide gas or air, and with this mixture passed through the ether he produced anesthesia in from seven to fourteen minutes. With ether alone Dudley Buxton(28), a prominent London anesthetist, says it takes him from ninety seconds to two-and-a-half minutes to produce anesthesia using Clover's inhaler.

The length of time necessary to produce complete anesthesia is sometimes of considerable moment, and to cut this as short as possible the English anesthetists have devised means for first giving nitrous oxide gas, and following this by ether. In the hands of experts this has been satisfactory. The English anesthetists do not think that chloroform acts quicker than ether, and with a less stage of excitement. The reason for this is doubtless due to the fact that they largely use Clover's inhaler, which allows them to so graduate the dose as to give very little ether at first, but as soon as the fifth nerve filiments are obtunded to give a more concentrated vapor than is possible by an open method.

The danger signals during inhalation are variously valued by different men. Diametrically opposite views have been given as to the deductions to be drawn from the size of the pupil during inhalation, but there seems to be a common belief that any sudden change in size is significent. All authorities are of the opinion that the breathing is to be closely watched as an index to the patient's condition, as well as giving an idea of the amount of anesthetic being taken into the system. The advocates of chloroform lay particular stress on this point.

Most writers agree that the condition of the pulse is a symptom to be considered. Dr. J. B. Roberts(31), however, says, from a study of ether deaths and a personal experience with three cases: "I believe that as a rule danger from ether is shown by the respiration and I always in etherizing have watched the respiration with more care than the pulse, but this custom which is general among surgeons, I now feel is founded upon error." That ether, which stimulates the heart and vaso-motor center, requires more attention to the circulation; and chloroform, which depresses the circulation, requires attention to the breathing seems contradictory. But when we remember that an over-stimulated heart becomes more rapid and its force less, and that when stimulated till it stops from exhaustion there is little hope of its again starting, then we see good reason for noting the pulse during etherization. And when we recall the intimate connection between circulation and respiration, we know that a weakened or dilated heart causes disturbance of breathing, and that this in turn embarrasses the right side of the heart by giving it more work. Hence in chloroform anesthesia the breathing acts as one index to the force of the heart's action.

But there are signals of danger other than those of cardiac failure, or of overdosage. The anesthetizer must see that his patient does not aspirate mucus from nose, mouth and pharynx. That the tongue does not fall back and close the glottis. If the patient vomits he must see that there is free escape of vomited matter. For an œdema of the lung, due to a toxic action of ether, there is perhaps no relief. Yet proper measures should be taken; such as—immediate venesection, inversion of the patient to allow escape of the profuse secretion, and stimulation by hypodermics of nitro-glycerine, strychnine and cocaine. If the œdema is due to overwork of the right heart these effects may be of benefit.

Evidences of over-dosage, short of cardiac failure, are cyanosis, rapid and shallow, or irregular breathing, fast and feeble pulse, and relaxation of muscles shown by dropping back of the tongue. For the lesser degrees of over-dosage, stopping the anesthetic, admitting fresh air and drawing forward the tongue, or raising the angles of the jaw and at the same time extending the head, usually suffice. But where symptoms of heart failure occur, the one remedy is artificial respiration. Dr. Fell(32) of Buffalo, has advocated forced respiration as being more certain in its results than artificial respiration. Dr. Wright(33) has added bleeding from an artery before artificial respiration is begun. The object being to quickly rid the blood of its excess of the anesthetic. The passage of duly areated blood into the arterial system is blocked by the venous and chloroform charged blood, which passed through the pulmonary capillaries before artificial respiration was resorted to. By opening an artery we provide an outlet for the greater part of the vitiated blood, and we reduce the resistance in the arterial system. From chloroform there is an enfeebled heart to tide over its burden, and hence stimulants are to be administered. Hypodermics of strychnia, cocaine, camphor, nitro-glycerine and digitalin are all good stimulants.

For paralysis of the respiratory center due to chloroform, Prof. Hobday(34), a veterinarian, has had success in animals by medicinal doses of hydrocyanic acid, either dropped on the tongue or given hypodermetically undiluted. But in these cases artificial respiration was also resorted to.

With a heart over-dosed with ether, amyl nitrite inhalation, by dilating the contracted arterioles, may reduce the load on the heart. H. C. Wood lauds the virtues of strychnine in ether poisoning and in regard to whiskey he says, "It seems to me an unalterable rule of practice that no alcohol should ever be given to the patient suffering from anesthetic cardiac failure." In cardiac failure from ether then, artificial respiration, alone or aided by bleeding to diminish the work of the heart and oxygen gas, to hasten proper ventilation of the blood, hold out the main hope of reestablishing the circulation. From the preceeding we may conclude that:

1. No anesthetic now known is free from danger. But the danger is lessened according to the skill and experience of the anesthetizer, though it is never entirely eliminated.

2. For safety, ether is the anesthetic of choice, unless it is specially contra-indicated.

3. In anesthetizing both pulse and respiration are to be noted.

4. Artificial respiration or forced respiration are to be at once instituted in cardiac failure.

5. Oxygen should be at hand in case of accident, and to be given after anesthesia to allay its unpleasant effects.

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DISCUSSION.

Dr. T. C. Smith said: I think that every physician will admit that we have not yet the anesthetic that we desire—one which we can use with perfect safety. The administration of chloroform is more or less dangerous, and there are very few who are willing to assert that the administration of ether is free from danger, hence the profession is still looking out for an anesthetic which will possess these qualities: Safety to the patient, promptness in suspending sensation and efficiency in its action. Some years ago the late Dr. Howland, made some experiments before this Society, going to show the utility of an admixture of the nitrous oxide and oxygen gases in the production of anesthesia. It is true that all the experiments that he made before the Society were upon chickens, but he gave his reasons for using these, and those who were present will remember that the chickens went under the influence of the mixed gases very promptly, without struggle, laid upon their sides without any movement whatever, breathing regularly, and were, to all appearances, as in natural sleep. We all know that nitrous oxide itself is a very prompt anesthetic, but unfortunately its use cannot be indulged in for any prolonged operation, but if by the admixture of oxygen gas, as Dr. Howland claimed, we may secure safety to our patients, quickness of the action of the anesthetic, and entire obliteration of sensation during surgical operations, we will have obtained something which for we have been reaching out for a long time.

Dr. I. S. Stone said: There is one question, referred to by Dr. Johnson, that I think needs a little elaboration, that is, in reference to giving any anesthetic during the existence of nephritis. The prevailing idea is that it is better to give chloroform in all cases in which albuminuria is present. I have used chloroform extensively, and in regard to my personal position relating to giving anesthetics in albuminuria it seems to me the proper way to consider that question is this: If a patient needs an operation to save his life, and the extent of nephritis is not great, either one of the anesthetics should be administered. Of course, if the heart is weak we prefer ether.

For my part I should not hesitate, if the operation is necessary to save life, to proceed with the anesthetic, either ether or chloroform. I have given ether often when albuminuria was present, and I have often seen albuminuria follow the administration of chloroform and ether alike. At first I thought it followed ether more often, but there is no question about it that the trouble may follow chloroform as well. At the Columbia Hospital they claim that albuminuria follows both anesthetics. When the patient has albuminuria and the operation can be postponed, I think it very unwise to give any sort of anesthetic. Of course all of us have to do more or less experimenting. A patient of mine died from chloroform administration. She had had septicemia for perhaps a month or six weeks, and as she had albuminuria it was thought best not to give ether, and in order to get her anesthetized as quickly as possible to do a short operation, (open a pelvic abscess I think) chloroform was used, and the patient died before she was taken to the operating room, and therefore before the incision was made: we should have an anesthetic, as Dr. Smith says, which could be given without danger.

Not over a month ago I saw one of our best assistants continue the administration of the anesthetic after the glottis was closed and without real respiration, yet there was motion of the abdominal muscles. In regard to what Surgeon General Laurie has said about patients and animals dying by failure of heart and respiration, those of you who are familiar with this report will know that he claims in a very large majority of instances the patient's respiration ceases first. Now it is very strange that there should be no greater unanimity about this. It has been shown in a vast number of instances, and I believe in nearly every instance, that the patient is getting carbon dioxide poisoning with the over-dose of chloroform, and the respiration has ceased before the doctor notices it, and consequently the double poisoning is going on before the heart ceases.

Dr. Reyburn said: My experience was very extensive with anesthetics during the war. Chloroform only was given, and we never had a single death from it. Two cases of death from ether have come under my observation. One case was that of the late Father Boyle, whom many here will remember, and the other a woman that I operated on at Providence Hospital two years ago. I believe that in the use of anesthetics, the administration is really the most important factor. For myself, I have returned to the use of chloroform. Ether is more troublesome to give, much more irritative, and is often followed by distressing after effects, while chloroform is much more simple, and I believe if properly given the danger is about the same; but I do think, as Dr. Stone says, that in every hospital anesthetics should be given only by persons selected and educated for that purpose.

Dr. J. Taber Johnson said: I have not had great experience in giving ether, but I have had considerable in operating where other people gave it, and I must testify to the very great amount of comfort enjoyed by the operator when some one is giving it in whom he has confidence. We have all seen a great deal of inefficient work in administering anesthetics. The anesthetizers duties are just about as important as those of the operator. Anesthetics have sometimes caused the death of the patient when an operation was going on which had no special danger attached to it. I remember sometime ago a case in which chloroform was given for the operation for piles, and the patient was dead before the ligature was applied, before anything was really done by the surgeon. It seems to me that we should—it is our honest duty—to develop our technique in this as well as in all other directions, and if we could have in the hospitals in our city a trained man who would be known as an expert in giving anesthetics, we would be doing more for our patients than by letting this important part be performed by inexperienced persons. I cannot say which is the safer of the anesthetics. We have, as Dr. Stone said, an increase of albumen in the urine after giving chloroform, as well as after giving ether, but so far as my knowledge goes from personal experience and from what I know of the experience of others, ether seems to be safer than chloroform, that is if we take statistics of 1,000 or 10,000 cases, but our hospital records are defective. They are keeping statistics in other directions, but they are defective in reference to anesthetics. If we could have this point more thoroughly developed I am sure it would be greatly to the advantage of all. If we take patients by the 1,000, 10,000 or 100,000, data collected from many hospitals in a certain year or ten years, we will find that out of 10,000 cases where anesthetics are given there are more deaths from chloroform than from ether. But it is true, as Dr. Reyburn says, that a number of cases in which patients have lost their lives from the bad administration of ether are not set down against ether, for the reason that the patients die several days after with pneumonia or nephritis or bronchitis, which was caused by the ether. These late deaths help to equalize the matter to some extent. Ether, then so far as I can see, is safer than chloroform, it is safer in the hands of an inexperienced man, who could kill a patient a great deal easier with chloroform than with ether.

Dr. Adams said: I have had considerable observation and experience in administering ether, and the more experience I have in its administration, the more firmly I believe that the practice of turning over this important office to the new appointees at the hospitals is a pernicious one. If the surgeons in the different hospitals would ask or insist on having some one specially appointed for that purpose, there would be less danger in anesthesia. I have seen the danger caused by both anesthetics. In cases of children, I have seen just as many deaths from one as from the other. So far as adults are concerned, I would much prefer ether. I have seen one administration by DeHart's method, and I want to say to the members of the society that when that method is used I want to be relieved of all responsibility. I think in the hospitals it should be the duty of the surgeon to have a competent administrator and not allow a new man, on the second day after his appointment to the staff, to administer anesthetics.

Dr. Belt said: I will simply say a few words in regard to the resuscitation of patients suffering from chloroform or ether narcosis. In Dr. Johnson's paper nothing is said about inversion which some surgeons look upon as the most important method known; Dr. Chisolm especially, who has probably had more experience in giving chloroform than any other man in this country, (and I know that he has had it administered, at least 15,00 times, and has never had a death,) attaches the utmost importance to lowering the patient's head whenever he sees the symptoms of cessation of the respiration, or failure of the pulse. I saw one case that may be cited as a striking illustration. A little child was suffering from glioma of the retina, necessitating the removal of the eye-ball. The child was about three years old, and went readily under the influence of chloroform. The doctor commenced the operation, and a few minutes after I had stopped the administration of the chloroform I noticed the respiration had stopped, and at nearly the same instant the pulse was imperceptible. We stopped the operation at once, took the child by the feet and held it in the air, and resorted to artificial respiration, which was kept up four or five minutes before we saw any apparent evidence of return to life. When we stopped the artificial respiration the child would not continue to respire. The forced breathing was kept up while the child was held in the air inverted until gradually it commenced to breathe again. The child was then put in the horizontal position on the table, and it stopped breathing immediately (as soon as it was not suspended), and we had to suspend it again in order to make it breathe. This method was kept it up in the same way until it was wide awake and began to cry; it was then put back on the table and Dr. Chisolm told me to go on with the chloroform, and the same result followed, the breathing stopped, and we had to invert the child. The third time this occurred, and in each instance, if put down before thoroughly awake, the breathing would stop, which I think well illustrated the importance of this method. The operation concluded with the patient suspended, its shoulders only resting on the table. Chisolm holds that while some one is running for the battery, hypodermics of strychnia, etc., that the patient should be inverted, and I think he regards artificial respiration of next importance. He thinks that the greater number of deaths reported from the use of chloroform are due to carelessness in its administration; and, that the patient should inspire at least ninety or ninety-five per cent of atmosphere with the chloroform.

Dr. Glazebrook said: I merely wish to say a few words in behalf of the young hospital surgeons. I think most of the speakers of the evening have been rather severe on the young man who has just passed his examinations and entered the hospital as junior physician. His usual duties require that he shall take charge of the ambulance, and administer the anesthetic. He comes to the hospital uneducated in the use of anesthetics; he has it taught by the professor of materia medica in the class room, and gets a general idea of the symptoms from text books, but that is a small part of what is required in regard to anesthetics;

therefore, it looks very much to me as if the blame lies upon the hospital authorities—with those above him. They should see that he is carefully instructed in the use of anesthetics. After that point is reached and he is thoroughly acquainted with it, more should be expected of him. A man in active hospital career should be able to receive such training in from three to four weeks if he uses care, and after that time I think it should be understood that not only is the man for whom the anesthetic is given, but also the man who is giving the anesthetic responsible. Very often, I think that the cause of so many accidents is due to the fact that the responsibility is misplaced. The anesthetizer does not feel that he is responsible in going ahead or stopping. I therefore agree with Drs. Johnson and Stone in their suggestion that if it is possible to have an authorized person delegated to administer anesthetics it would be the best plan. I always enter such duties with a great fear and dread, of the responsibility, and I do think that the whole trouble lies in the fact that our young men in the hospitals are not instructed in the practical methods required.

Dr. Magruder said: The subject has been so well covered by the writer of the paper, and by those who have spoken, that there is but little to be said. However, I would like to call attention to the suggestion of carrying out Dr. Howland's experiments. These were a modification of the method as introduced by M. Paul Bert of Paris. You will remember that it was necessary for him to have a chamber which had a pressure regulator, and it would be necessary for a hospital to have such a chamber. That was attempted in Paris and abandoned on account of the expense to the hospitals in carrying out the experiment. Then, there is another point which has been over-looked, a record of which might account for many of the deaths. I have stood by the operating table and have seen the junior assistants inject digitalis, atropia, strychnia one after another, apparently without any regard to the total quantities used. I stood by once and after calling attention, I think they counted up, that they had given the patient more than a half to a grain of strychnia inside of fifteen minutes, and I think there is a temptation to do that in these cases for want of proper instructions and knowledge on the subject.

Dr. Wallace Johnson said in conclusion: If the hospitals would make definite reports on all of their cases of anesthesia, our statistics and knowledge on this important subject would be more complete, but the public hospitals in this country are very lax in this respect. The records in regard to the anesthetics should state the kind used and the conditions of the patients before and after they are used, but very few of the reports give the ultimate results. They give the number of operations and the number of deaths. Surgical cases and medical cases are reported accurately as to variety of disease and numbers of cases of each disease, together with the results of treatment. But very seldom do the reports give anything in regard to their anesthetics, so we have very little definite information in this country in regard to this question and I was in hopes, that some one would bring out that point more fully.

MEETING OF OCTOBER 14, 1896.

Dr. S. C. Busey, President, in the Chair.

The Recording Secretary reported that the volumes of the transactions for 1894 and 1895 had been indexed, and asked for authority to have them bound, which was granted.

Cancer of the Stomach; History and Specimen.

Dr. Wade W. Atkinson presented a specimen with the following history:

Mrs. W. H., white, married and about seventy years old. Previous health excellent and was actively engaged in business when first symptoms of indigestion, loss of flesh and weakness were noticed in June. July 22d she travelied alone to New York and took a week's treatment, remaining in bed. Felt better and returned home July 10. While getting off the street car on her return home she had a faint feeling and was assisted to the house and the nearest physician was called, who treated her for indigestion, weakness, loss of appetite, constipation, etc., as she called her trouble. During the above period she was about the house and attended to some business down town.

August 20, I first saw her. Her symptoms were: loss of appetite, nausea (but no vomiting); bread seemed especially indigestible, loss of flesh and general depression of spirits and vitality. Palpation showed a nodulated mass in the epigastrium, but at times it seemed to disappear. After about ten days treatment, the diagnosis of cancer of the pylorus was made and confirmed by Dr. W. W. Johnston in consultation, September 7th.

The symptoms of pain and vomiting were absent and while nausea frequently gave much distress, the patient never vomited until September 20th. The vomited matter was the so-called "coffee-ground" vomit, and continued until death; at first one vomiting spell in two or three days, increasing in frequency until eleven or twelve occurred during the twenty-four hours before death. Pain was absent throughout the disease except a gnawing feeling that was sometimes present in the stomach.

Patient died October 14th, and this specimen was secured at the post mortem this afternoon. It is of the encephaloid variety of cancer, involving the entire pyloric end and a part of the body of the stomach. One of the ulcers had nearly penetrated the wall near the adhesions of the pancreas, which was secondarily infected, as was also the liver. The adhesions surrounding the mass were quite extensive.

ELECTROLYSIS IN THE TREATMENT OF DISEASES OF THE SKIN.

By James C. McGuire, M. D.

[abstract.]

Faraday first used the term electrolysis, signifying the act of chemical decomposition of such substances as water, by means of electricity. Shortly after this, Davy, by the same means succeeded in decomposing the alkalies soda and potassa, and proved that they were the oxides of the then unknown metals sodium and potassium.

Physicians have since utilized the power of the galvanic current to destroy tissue elements by chemical decomposition. Electrolysis has been used for the removal of superfluous hairs, the destruction of vascular nævi, telangectasis, freckles, small tumors, warts, keloids, xanthoma in both forms of lupus and the enlarged blood vessels of rosacea.

The removal of hairs is the most important use to which the physician has applied electrolysis. The hair may be put slightly on the stretch with forceps, the sponge electrode (connected with the positive pole) is placed in the hands of the patient; then the needle attached to the negative pole is gently introduced along the side of the hair, slight frothing will be observed at the mouth of the follicle; after the operation is completed the hair should come away with the slightest traction. My records show in the last twenty-five cases I have treated, that thirteen of the women were married, nine of these had several children, five were decided brunettes, two blondes, the others of medium colored hair and complexion; the greatest number of hairs removed was 1,770.

Case I. Married woman, twenty-nine years of age. In twenty-five sittings 1,770 hairs were removed, many were recurrent hairs. She is now entirely relieved of the trouble.

Case II. A young unmarried woman from whose lips, cheeks and chin 580 hairs were removed; four months later, 100 hairs were taken away, since then about forty. Her face is now free from any growth of hairs.

Case III. A mother and two daughters were operated on about the same time. In one of the daughters the lips were covered with a downy growth, and a number of long stiff hairs; the latter were removed. The mother had a mole the size of a ten cent piece on the left side of the lip covered with a number of long stiff hairs, both were successfully romoved. From the remaining daughter 500 hairs were taken away. The three patients express themselves as entirely satisfied with the results of the operations.

Case IV. A young married woman, whose face was entirely free from hypertrichiasis, had a number of long dark hairs growing in the center of the chest, since their removal only a few have returned.

We compute the number of hairs that return. The fact is usually overlooked that these may be new hairs that are growing at the very time we are operating.

In 1879 Dr. Hardaway recommended electrolysis for the obliteration of enlarged blood vessels in rosacea. Collateral circulation may later be established, but these vessels can also be destroyed. There is no better treatment for telangectasis, if the current is used in sufficient strength, it will cure all cases. For the relief of nævi, there is nothing that offers such favorable results.

The strength of the current should be from three to five miliamperes continued for several minutes. The pain is rather severe and in cases of children an anesthetic should be given. The operation should not be repeated for several weeks on account of the inflammation that is set up.

DISCUSSION.

Dr. F. B. Bishop said: His experience as well as that of a number of others, who had written upon the subject, was that the interrupter or current breaker upon the needle holder was objectionable; inasmuch as when the contact is made through the current breaker, it being a metal contact, it was very sudden, and accompanied by shock and pain and often by flashes of light. This was obviated to a great extent by fixing the rheostat at the point desired, and after the needle has been cautiously introduced allowing it to glide into the follicle by its own weight. Instruct the patient to close the hand gently and in doing so the contact is made with little shock and pain, and is broken again by simply opening the hand.

The number of hairs that return after removal by electrolysis, is said to be from ten to twenty-five per cent. But his observation has led him to believe that the electricity developed the growth of the finer hair that is left after each operation. He believed that if the needle was carefully passed into the follicle, no scarring would result, for we know that the skin is one of the very worst conductors of the human body, while the fluid medium beneath the skin is one of the best conductors. He was under the impression that Dr. McGuire failed to state in his paper which pole of the battery to use in treating birthmarks. This is very important. In treating a very vascular nevus, the positive pole should be used, this will coagulate the blood, harden the nevus and cause it to shrivel, and if it does not altogether disappear, by the use of the positive pole, after the vascularity has been destroyed, it may be further and completely dissipated by negative electrolysis.

In the treatment of lupus and kindred diseases the soluble metallic electrodes have been found very useful. They are made the positive pole of the battery, and applied to the ulcers; they attract the oxygen and acids and decomposition of the metal takes place. Salts of the metal is deposited, and follows the course of the current and is actually driven into the tissues. Another valuable method of treating certain chronic skin diseases is the diffusion of medicines by the electric current. Notwithstanding all that has been written and spoken in regard to driving iodine into the tissues by the positive pole, he wished to state emphatically that such a thing is a physical impossibility, and that iodine, being an electro-negative, is attracted to and not driven from the positive pole. Dr. Bishop reported two cases of psoriasis, treated by the electro-negative diffusion of iodine.

Dr. McGuire, in closing the discussion, said: In regard to the current breaker attachment, he preferred it to the plan of allowing the patient to hold the electrodes. In his experience this attachment did not cause any amount of shock and it was of advantage in the fact that it was entirely under control of the operator. That there might be a growth of hair immediately following the operation for hirsuties was a fact, but it did not necessarily follow that the electrolysis had stimulated it; the primary cause that influenced the hypertriachisis was probably still active. The stimulation by electricity to renewed growth of hairs was by no means proved. In regard to the treatment of nævi he was accustomed to use both the positive and negative poles to the growth.

In the treatment of psoriasis, chrysarobin as a rule was the best remedy, but if it caused a dermatitis from some idiosyncrasy of the patient, one of the preparations of tar could be substituted.

THE SUTURE-CLAMP OPERATION FOR HEMORRHOIDS.

By Llewellyn Eliot, M. D.

It is not my intention, at this time, to discuss the various operations for the cure of hemorrhoids, but simply to call attention to an operation, which I have successfully performed several times during the past year. The operation and the suture-clamp, so far as I am aware, originated with Dr. William Erwin, of Walter's Park, Pa., and should receive a more extended recognition, as an examination of the instrument will illustrate the simplicity of the procedure.

The clamp consists of two arms bent at a right angle at the lower end. This bent portion which is about one and one-half inches long, is provided with a shoulder half an inch high and perforated by five small opening. The shafts above the angle are pivoted and serrated to receive a ring which regulates compression and bleeding.

To do this operation, the patient is

prepared, by having the bowel well flushed; the legs are held with a leg-holder; the sphincter is well dilated, the hemorrhoid seized with forceps and well drawn down, the clamp is then applied as near the base of the hemorrhoid as possible, and the ring slipped along the serrations until we have a sufficient amount of compression to control hemorrhage: with a needle, threaded with silk or catgut, the hemorrhoid is then pierced through the needle holes of the clamp. When the sutures are placed, the hemorrhoid is cut off with either knife or scissors, the sutures tied and the clamp removed. The stump is dressed either with aristol, acetanilid, iodoform or other antiseptic material and returned to the bowel should it not return of itself: gauze, absorbent cotton and a T bandage complete the dressing. Where the hemorrhoid is longer, that is to say, has a broad base, broader than the blade of the clamp is long, the hemorrhoid must be removed in sections, one section being completed to the tying of the last stitch, before the second section is attacked, the reason for leaving the last stitch incomplete is, that we may have a certain amount of control of the remaining part and then again, the clamp can be placed more satisfactorily. It is surprising to see what a small amount of blood is lost in this procedure, and if the sphincter has been well dilated there is a comparative absence of pain following the operation. Convalescence is usually very rapid, there is but a short detention from business, the sutures are removed on the fifth or sixth day and the wound is then nearly healed. Should the stump remain large, a few applications of a mildly astringent solution of alum or tannic acid will contract them and they finally disappear. Chloroform must be administered to properly perform this, as well as any other operation about the rectum.

No case histories are cited here, but I have removed by this operation seven hemorrhoids at a sitting, when the anus resembled a link of sausage, flanked with grapes and cherries. This was more than I would have dared to do under any other operation on account of the troublesome hemorrhage attending the use of the clamp and cautery, the incision, or the Whitehead, or the excessive sloughing which would have attended the injection method. In every case the patient has been discharged before the end of the second week and has remained cured, if the expiration of a year without return may be regarded as a cure. There is no effort made to control the action of the bowel after the third day when they may be allowed to move. The diet is restricted for the first few days to liquids or semi-fluids; then all restriction is removed. The advantages of this operation are:

1. It is almost bloodless.
2. It does not present a sloughing surface.
3. It heals rapidly.
4. It removes the entire hemorrhoid.
5. It does not affect the tonicity or the calibre of the bowel.

DISCUSSION.

Dr. Robt. Reyburn said: This method which Dr. Eliot has described has certainly a very great advantage over the ligature operations, for it does away with all danger of sepsis, which is a constant source of menace where the ligature is left in the wound. When piles were ligated he had seen some very alarming symptoms dependent upon sepsis, though he had seen no deaths result. Another operation, that of dilatation of the sphincter, had many advocates. The operation of injection was much better for small internal piles than any other yet devised, but he had found that a solution of nitrate of silver, thirty grains to the ounce, gave better results than carbolic acid or any other substance. In cases of internal piles it is the operation of selection. Whitehead's operation, now commonly called the American operation, a method of dissecting out the mucous membrane of the anus, was a very severe operation and had frequently caused stricture of the rectum. His advice was to remove the entire growth when the piles were external or of large size rather than to tie them, but in mild cases of internal piles the dilatation method would give just as good results. He thought that the method which Dr. Eliot had described was the best, for it was absolutely aseptic.

Dr. J. Ford Thompson said: He had used all the various methods devised for the relief of hemorrhoids, except the one brought forward this evening by Dr. Eliot. He could not see any special advantage to be gained by this operation, and he failed to see how the instrument exhibited would control hemorrhage. He had always found that with the ligature operation there was considerable suffering for a night or two. The old Allingham method described in our text books did a great injustice to Allingham, for Allingham's later method was not by suture but by the ecraseur. Dr. Thompson had employed the new Allingham method for years. The clamp and cautery method used by Smith was the only method which could compare with Allingham's. He had frequently used both methods, employing alternately Allingham's clamp and Smith's cautery, and he had found no difference in suffering or results in the two methods. The advantage in this kind of operation was that nothing was left in the rectum, for the hemorrhoid was entirely cut off and no ligature was used. He now used Smith's and Allingham's operations in preference to all others, though he still operated by the Whitehead method occasionally.

He expressed surprise at hearing Dr. Reyburn endorse the injection of carbolic acid or nitrate of silver. The operation suggested by Dr. Eliot was insufficient to prevent hemorrhage; it exposed the bowel; and it left sutures in place which would give rise to the discharge of purulent matter and might require removal.

Dr. Eliot, in closing the debate, said: The injection method which Dr. Thompson had condemned was one which he had followed with very good results. He had used for injection a preparation of tannic acid, glycerine, carbolic acid and alcohol with success. The strength of the carbolic acid injection which he first used was twelve per cent. Whitehead's operation was a very bloody one, but not very severe, nor did he think it should be followed by stricture if properly performed. The operation of thorough dilatation of the sphincter was open to the objection that it prevented the deep narcosis which was so necessary in all these operations. If Dr. Thompson would examine the clamp which he had presented with greater care he would see that its control of hemorrhage was absolute: not one drop of blood need be lost. He had operated by this method fifteen times within the past year, and had not lost more than a wine glass of blood at any of them. Ligatures would occasionally slip. Allingham used to use a clamp and cautery if he remembered rightly. He knew of one case where the clamp and cautery had been used and where the hemorrhage had been enormous. In this operation there was no pedicle, the cut surfaces of the hemorrhoid go together as the cut surfaces in other operations. There was strong tissue through which the sutures passed, this was not the case where the cautery had been used.

MEETING OF OCTOBER 28, 1896.

Dr. S. C. Busey, President, in the Chair.

The President, as chairman of the committee on legislation, called attention to the need of securing certain amendments to the Act to regulate the sale of milk in the District of Columbia, and for other purposes: and to the Act to prevent the spread of scarlet fever and diphtheria in the District of Columbia: also to the importance of favorable action by Congress in reference to the establishment of a bacteriological laboratory in connection with the Health Department, the provision for the destruction of the combustible waste of the city by fire, and the organization of a public disinfecting service; also to a bill to regulate expert or opinion evidence in the courts of the District of Columbia, which had been presented to the Society in connection with a paper upon that subject some time ago. He stated that unless there was objection, all of these matters would be referred to the Committee on Legislation.

There was no objection, and they were so referred.

The following is a copy of a bill prepared by Dr. Wm. C. Woodward for the approval of the Society and entitled A Bill to regulate expert or opinion Evidence in the Courts of the District of Columbia.

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

Sec. 1. That in the courts of the United States no opinion or expert evidence shall be admissible except as hereinafter provided.

Sec. 2. That in all cases it shall be the duty of the trial judge, subject to review by the appelate court, to decide whether the skill of any person, in the matter in which evidence of his opinion is offered, is sufficient to entitle him to be considered as an expert.

Sec. 3. That in any civil action, upon a showing by either party that the testimony of any expert is necessary for an intelligent understanding of a question in issue, or for the understanding of any evidence revelant to the issue, the court shall name some person or persons not to exceed three in number, of special skill as to the matter in question, who shall be examined by the court subject to cross examination by counsel, upon the matters of special skill or knowledge relating to or growing out of matters in controversy. The cost of such expert testimony to be taxed against the party requesting the same. Provided, that nothing herein contained shall be construed to deprive any party of the right of exception to the ruling of the court on the sufficiency of the showing calling for expert testimony, or as to the person or the expert designated.

Sec. 4. That in criminal proceedings, excepting in cases involving the sanity of any defendant, whenever in the opinion of the court the ends of justice demand, the court may on its own motion or upon the proper showing of either party, appoint or designate such person or persons as by reason of their special skill may be qualified, to give testimony upon such matters as may be involved in the case on trial. The cost of such testimony to be borne by the government. Provided, that nothing herein contained shall be construed to deprive any defendant of the right of exception to the ruling of the court on the sufficiency of the showing calling for expert testimony, or as to the person of the expert designated.

Sec. 5. That in all criminal cases involving the sanity of any defendant, the court shall appoint a commission, consisting of three physicians skilled in the treatment of mental disorders, one of whom shall be chosen from persons nominated by the government, one from persons nominated by the defendant, and the third to be selected at large by the court. In event of either the government, or the defendant, or both, failing to make such nomination the court may appoint without such nomination the expert or experts to which either or both may be entitled: said commission shall make such investigation as the court may direct and shall submit to the court a finding, to be signed by the majority, which said finding shall be final and not suject to exception or appeal, said finding to be submitted to the jury to receive the same weight as other evidence. Provided, that nothing herein contained shall be construed to deprive any defendant of the right of exception to the ruling of the court on the sufficiency of the showing calling for expert testimony, or as to the person of the expert designated."

The President announced the following essayists for 1897:

January,	Dr. W. K. Butler
February,	Dr. H. D. Fry
March,	Dr. E. A. Balloch
April,	Dr. W. W. Johnston
May,	Dr. J. Ford Thompson
June,	Dr. C. H. A. Kleinschmidt
October,	Dr. T. E. McArdle
November,	Dr. W. H. Fox
December,	Dr. H. B. Deale.

THE NATIONAL

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THE EDITOR'S TABLE.

A Happy New Year.

Happiness is not always associated with increased business and larger income, yet everybody seems to be expecting a happy year. May none be disappointed.

The President's Address. The rooms of the Medical Society were well filled on the evening of the 16th of last month to listen to the annual address of the President, Dr. S. C. Busey. The year 1896 was declared an epoch in the history of the Medical Society of the District of Columbia. Five reasons were given for this:

(1) The profession had succeeded in procuring the passage of a law regulating the practice of medicine in this District, and punishing persons who violated the same. Reputable physicians the world over can no longer point to us as the Mecca for all quacks and impostors.

(2) An act was also passed to regulate the establishment of medical colleges in the District. The value of this law cannot be overestimated as it will certainly prevent the establishment of those medical schools which grind out diplomas at so much per copy without regard to the qualifications of those who purchase them.

(3) Another law of great value to the profession was enacted which relates to the testimony of physicians before the courts of the District. It is now impossible for any court to compel a physician to reveal confidential communications when such communications were necessary for the physician to know in order that the case in hand might be treated to the best advantage.

(4) As a result of formulating a series of propositions relating to the sewage and water supply of the city, one has become a law. It is the one which requires that all inhabited houses be connected with the public sewers when it is possible so to do. As a result of this discussion it is also hoped that all the open wells in the city will be closed and that no such thing as a box privy shall exist.

(5) The fifth advance which had been made relates to the publication of the transactions of this society. The President called attention to the necessity of placing on record valuable scientific work in order that as many as possible might profit by the same. Attention was also called to the great need of a contagious hospital and a strong appeal was made that something might be done in this direction without delay.

The address closed with a glowing portrayal of the high office which the noble physician fills. The address was followed closely by every person in the rooms, many of whom were visitors, and at its close the President received the heartiest congratulations from those present.

First Cast out the Beam.

We have never had much sympathy for the anti-vivisectionists. In fact, not many months ago their national organ had us pictured as butchering a dog in a horrible manner, while some not very complimentary remarks were appended. We are aware also of the efforts which are being put forth by the profession to create a healthy sentiment in Congress on this whole question. From more recent developments, however, it is certain that we need home missionary work and of the most vigorous kind. When the anti-vivisectionists can point to the most atrocious cruelties perpetrated by professional men in the so-called interest of science, it is necessary that someone should speak out very strongly. We do not propose to give the exact authority where the cases mentioned below are published, nor will we call attention to the strong criticism made upon these articles by a medical journal, for it would be absurd in us to tell the enemy precisely where they can find our weakest point. But the following experiments were recorded in a medical journal published in one of our largest cities, and another journal of equally high standing is the critic. The author of the papers referred to relates how he had experimentally tapped the spinal cord of forty infants in order to determine whether such punctures were dangerous or not. In not one of these forty cases were there any symptoms which demanded such surgical procedure.

Before performing these experiments the author said that he had made this operation once on a case of doubtful tubercular meningitis. He describes how his patient "clutched at her hair, tossed herself about the bed, and uttered sharp cries". As a result of this experience the author says he was determined to decide the question once for all of the diagnostic value of puncture of the subarachnoid space; therefore, he selected forty infants, who had been entrusted to his professional care, on which to perform these experiments of unknown value and unknown safety. Although he says he "was prepared for any emergency which might arise, yet the little patients only cried out, that was all".

And yet this is January, 1897!

Granting that the unprecedented atrocities here recorded are facts, have the anti-vivisectionists used too strong terms against us? Of course one swallow does not make a spring, and yet one such member of the profession as this can do inestimable harm to the advancement of medical science. We pass strong resolutions and exert all our influence to prevent the passage of laws which shall do nothing more than regulate vivisection upon the lower animals, but here is one of our own kith and kin who performs experiments, which might easily have been fatal, on forty helpless infants entrusted to his care. Is it not for the best interests of medicine for us to cast the beam out of our own eyes? Nothing would give us more satisfaction than to vote for the expulsion of every such medical man from every medical society or association with which he might be connected. Indeed it would not be going too far to debar such from the active practice of medicine. Home missionary work and of the strongest kind is evidently what is needed, in some cities at least.

Does anyone imagine for a moment that this surgeon could have performed these experiments on the children of wealthy or influential people? And if not on these, why perform them on the children of those in less fortunate circumstances, who, possibly, might be even more deserving of the esteem and protection of the profession?

Let us not be afraid to denounce cruelty when it occurs at our own doorsteps. Let us show to those who declare against all vivisection that we are ready to denounce cruelty no matter where it occurs. We cannot hope to have the sympathy of the public, we cannot hope to prevent the passage of laws which will restrict the advancement of medical science unless we are ever ready to denounce such action as that noted above.

A Monument to M. Pasteur. It has been decided to erect in one of the squares of Paris a monument to M. Pasteur. A committee has been formed in this city for the purpose of receiving subscriptions for this monument. The medical society is represented on the committee by Dr. Wm. B. French. The doctor invites the hearty co-operation of all the physicians of the District and will be made very happy by receiving generous subscriptions to the fund.

COMMUNICATION.

The Medical and Surgical Society of the District of Columbia.

At the meeting of this Society for December 3, 1896, Dr. W. P. Carr read a paper on The Importance and Treatment of Endometritis. Dr. Carr spoke of the great importance to be attached to the prevention, the diagnosis and the treatment of this diseased condition. He exhibited a drainage tube which he had devised and used successfully. The importance of endometritis depends upon the disease which causes it: upon the virulence of the germ; or upon obstruction of the cervical canal either from stenosis or flexion. The treatment consists in antiseptic applications, drainage, removal of the diseased tissue, and in measures directed to relieving the local congestion of the uterus. Antiseptics do good only when they can be kept in contact with the diseased tissues for a long time. Drainage is the most important. Gauze drainage is worse than useless. Outerbridge's tube is irritating when made of aluminium; not so much so when made of silver. He spoke of the antiseptic and germicide properties of silver. Curettage is necessary only when there are small polypoid growths or granular endometritis exists, or in obstinate cases with great thickening of the mucosa. Although Johnston announced as his opinion that the mucous membrane of the uterus was not a mucous membrane but a mass of lymphatic tissue, which opinion has been pretty generally accepted, Dr. Carr still adheres to the belief that it is a mucous membrane, and that its complete removal cannot be effected without bad results.

In discussing the paper Dr. Bovee said he agreed with Dr. Carr's statements. He thought because menstruation in a case of endometritis was free, it did not prove the absence of stenosis. He has used Outerbridge's tube with success. He does not place much reliance in gradual dilatation as practiced in the office, for the danger of infection is too great. The uterus should be placed in proper position if possible, so as to allow drainage. In dilating we should rely upon manual force and not on a screw. He would fear infection of the uterus with solid tube, with the size of the canal like that of Dr. Carr's instrument.

Dr. Moran thought the nature of the inflammation should be first considered. He doubted if simple drainage in a septic uterus would be beneficial. We have not arrived at any satisfactory method of drainage as yet.

Dr. Kober said he believed the darkening of silver instruments was due to hydrogen sulphide.

Dr. Bishop spoke of the antiseptic and curative effects of electricity. He does not believe in leaving the drainage tube long in the uterus.

Dr. Carr, in closing, said that in some cases he curetted first and used drainage afterwards. The best means for dilatation is by gradual flexible sounds; he said he had used cocaine in his office cases.

Dr. L. Eliot read a paper entitled, A few words on Small-Pox. He showed several temperature charts with case histories. He spoke of the mortality of the disease and the care necessary in attendance upon these cases, and of the importance to the profession of accurate case histories. He then spoke of the disease generally; from incubation to termination.

Dr. Kober said he understood that the etiological factor of the disease was about to be announced by Dr. Reed of the U. S. Army.

Dr. Eliot did not think this factor had been discovered; he referred to several authorities upon the subject of contagion, and also spoke upon the question of quarantine in this disease.

BOOK REVIEW.

ANATOMY, DESCRIPTIVE AND SURGICAL. By Henry Gray, F. R. S., Lecturer on Anatomy at St. George's Hospital, London. New and thoroughly revised American edition, much enlarged in text, and in engravings both colored and black. In one imperial octavo volume of 1,239 pages, with 772 large and elaborate engravings on wood. Price of edition with illustrations in colors: cloth, $7.00; leather, $8.00. Price of edition with illustrations in black: cloth, $6.00; leather, $7.00. Lea Brothers & Co., Publishers, Philadelphia and New York, 1896.

It would be difficult, if not quite impossible to find a member of the medical profession who had not either used or heard of Gray's Anatomy. One reason why it is as much a standard today as when it first appeared is because the publishers have never allowed an opportunity to pass whereby it might be improved. This latest edition is peculiar in that it is revised exclusively by American Anatomists, the first time this has occurred in the long history of this standard work. A number of sections have been entirely rewritten, while those on Histology and Development have been remodeled. The illustrations, which have done so much to place this anatomy in the very front ranks, have been enriched by the addition of no less than 135 engravings. The editors have given especial attention to the practical application of anatomical facts in medicine and surgery. All the publishers of Gray's Anatomy should hope for, should be simply to maintain the exalted position which this work has enjoyed for so many years. This essentially American revision will certainly meet every demand and will hold the reputation of this volume as the most convenient and intelligible work of its kind. This volume is for sale by Wm. Ballentyne, 428 Seventh street, City.

THE
NATIONAL MEDICAL REVIEW.

VOL. VI. WASHINGTON D. C., FEBRUARY, 1897. NO. 9.

CHAS. H. STOWELL, M. D. EDITOR.

THE EDITOR'S TABLE.

Grape Seeds and Appendicitis. We do not suppose that any amount of medical literature will ever disabuse the public of the idea that grapes are a dangerous fruit. So far as that is concerned there are some physicians who still hold to the idea that grape seeds are a frequent cause of appendicitis. In order to determine what foundation there was for this belief, Dr. Edmund Andrews of Chicago, has made a study of the statistics of his city for every month during the last fourteen years. His report is published in full in a late number of *The Journal*. It appears that there have been 3,709 cases of appendicitis in Chicago during this time. These cases are all arranged by months that it might be seen whether there were more cases of this disease during the grape eating season or within a reasonable period after its close. The figures show conclusively that there was no increased frequency during the four grave-eating months. In fact, precisely the opposite was true, for during this time there was a diminution in the number, due probably, so the author says, to the fact that during these months there is less constipation and impaction of the colon then at other times of the year. While the majority of authors quoted in the article do not deny the possibility of appendicitis being induced by foreign bodies, yet they think this cause is a rare one. They hold to the belief that catarrhal inflammation is the origin of most cases.

Dr. Andrews gives good reasons why it is difficult for a seed or any other foreign body to enter a healthy appendix. He concludes that there is no scientific proof whatever that grape seeds are any more disastrous than the hundreds of other small objects which we daily swallow with our food. This is most gratifying, and an effort should be made to let the public know this fact, for grapes are among the healthiest and most agreeable of all fruits, and it is to be regretted that any public delusion should prevent their use.

No One But a Specialist. A well known specialist writes to the Practitoner that, "No one but a specialist" should ever attempt the removal of any foreign substance in the ear, if the use of an instrument was necessary. We are told that even death might occur from some unskillful maneuver. If this keeps on the poor general practitioner will have but little left for him to do. It occurs to us, however, that the specialist who insists that the general practitioner is not able to remove a bug from the ear and should send all such cases to one who devotes his entire time to that part of the anatomy must be suffering with some kind of a buzzing in his own head.

Substitution. The medical and pharmaceutical professions in Buffalo are greatly excited just at present over the discovery by Messrs Fairchild Brothers and Foster, that one of the most reliable pharmacists in that city has been substituting. We presume if he had been some small druggist in an obscure part of the city but little attention would have been paid to it, but when crime strikes the mighty it is altogether a different question. The prosecuting firm should receive the support and sympathy of all who love the right and believe in destroying the wrong. Sometimes one is inclined to believe that the only way out of this difficulty is for him to purchase all his medicines direct from the manufacturer and start a miniature drug store of his own. It is strange that many pharmacists are so short sighted as to attempt to deceive those on whom they must depend largely for their profitable business. We are glad to be able to state that there are many pharmacists in this city who would no more be guilty of substitution, than they would of stealing, and yet we know of some who believe, or at least say they believe, that there is no great evil in so doing.

The Kleptomaniac. We are surprised that some of our exchanges have inclined toward *London Truth* in its discussion of the sad case of Mrs. Castle. As our readers know this London journal took the position that it was only the rich who were ever afflicted with kleptomania, while the poor were always regarded as thieves. Both *Truth* and some American journals appear to forget that one of the strongest evidences is that the party committing the theft has no need of the things stolen. If the person who takes the goods is poor this would not be the case, for even if the goods could not be used they could be readily disposed of at a good figure. So strong are the temptations connected with poverty that it would be difficult to imagine that a person in need would store away in her room a large number of goods which could be readily sold or pawned and the proceeds devoted to satisfy comfort and hunger. We do not remember ever having heard of an instance where a person in need of food and clothing stored away quantities of goods in this way. On the other hand, we have one who is supplied with every need, and who is surrounded by everything which money could purchase in order to make life happy and pleasant. Such a person has no possible use for a large number of articles of one kind. Well fed, richly clad, surrounded with luxury, there can be no temptation to take articles of small value, either for use or in order that they may be sold. We think there is every good reason to believe that kleptomania is a disease which affects the rich more than the poor.

Antitoxin Statistics. And still we are treated to tables which show without doubt (to those who make them) that antitoxin invariably lowers the death rate in diphtheria. The reports always add that the diagnosis was made in each instance by bacteriological examination. These statistics would certainly be convincing were it not that these men so universally rely upon the Klebs-Lœffler bacillus as the sole test for the presence of the disease. They appear to forget that Dr. Gross has lately made the statement that in the Children's Hospital of Boston the diphtheria bacillus was found in 7.9 of the throats examined, when there was not the slightest clinical symptom of the disease. In one of these cases the bacilli were found for 103 days. In another case this bacillus was discovered in the discharge from an otitis media.

In this city cultures were made from the throats of twenty-two children who did not have a single clinical symptom of diphtheria, although it was quite possible that they had all been exposed to the disease. The diphtheria bacillus was reported as being present in eighteen of these cases; therefore, these children were treated to doses of the antitoxin and they all recovered! This is nothing against the use of antitoxin, but it is directly against those writers who are piling up great tables of statistics to prove the wonderful effects of this remedy. In order to put a case down as one of diphtheria we believe there must not only be bacteriological but also clinical manifestations of the presence of the disease. Not until these two are present and in unmistakable forms are we justified in calling a case one of true diphtheria. Such cases treated with antitoxin should justly be added to our tables, and these only. To be sure, our own personal confidence in antitoxin is such that did we have a case where the diphtheria bacilli were present, even without clinical symptoms, we should order the antitoxin as a wise precaution, but we would not be justified in reporting this as a case cured by that remedy. Therefore, we repeat what we have had occasion to say before, that the best proof of the success of antitoxin does not rest upon the examination of statistics, but rather upon the testimony of physicians of wide experience.

Altogether too Common.

Diamonds are very handsome and yet they would not be quite so attractive if they were as cheap as rhinestones. Pearls are beautiful, but they would lose their value if they could be perfectly imitated with glass. The Czar of all the Russians is a great character, and no one could be blamed for travelling a long distance to behold him; yet if there were 10,000 like him but few would care to pay him a visit. There was but one Disraeli and there is but one Gladstone. There are 100,000 physicians in this country and over 20,000 medical students. With this great increase in numbers there has been a corresponding decrease in the public estimation of the profession. The editor of *The Journal* says, "We have cheapened ourselves by making ourselves too common." He also adds that the medical profession led all the so-called learned professions last year in the number of suicides of its members. The fact is, there are too many of us; but we are all in the carriage and we propose to continue to ride, only stopping long enough to throw out the crippled and the dead! But is this state of affairs to continue? At the present one is reminded of the "scrambles", where a dozen little picaninnies will push, crowd and struggle to capture the penny which some tourist has thrown to them by the wayside. The orchestra chairs have long been taken, the dress circle is full, the gallery is crowded, and there is no more standing room. Close the doors or make the admission so difficult that those already inside may not be suffocated.

Treatment of Pneumonia with Cold.

In a late number of the *Medical and Surgical Reporter*, Dr. Mays, of Philadelphia, reports an additional number of cases of acute pneumonia treatment with the local applications of cold. This makes a total of 299 cases of acute pneumonia managed in this way. Out of this number there were ten deaths, giving the remarkably low death rate of 3.35

per cent. The method of applying the cold is in the form of pieces of ice placed in rubber ice bags. The bags may be wrapped in towels. After they are applied over the inflamed area, broad thin bandages may be placed around the chest in order to keep them in place. As many ice bags are used as are necessary to cover the inflamed area. If the temperature falls to or near the normal point and shows a tendency to remain there then the ice may be gradually removed. It is best, however, not to be in too great haste in withdrawing the cold. It must be borne in mind that the ice is used not only to reduce the fever but also to circumvent the exudative process and hasten resolution.

In discussing this paper Dr. Jas. Tyson said that his experience in the treatment of pneumonia with cold had been limited, yet on the whole satisfactory. He intended to give it a further trial. Dr. H. A. Hare said that while he agreed that cold should be applied in certain cases of pneumonia, yet he did not think any single measure should be employed as a certain means of treatment in every case. In the early stages it is wise to use every means to relieve the congestion, but when the lung is racked by exudation then cold will be of little service. Dr. S. Solis-Cohen said that the statistics which Dr. May gave were certainly quite conclusive, yet, taking everything into consideration we must conclude that it is utterly impossible for one plan of treatment to answer in every case any more than one could expect a coat, no matter how good its texture nor how beautiful its fashion, to fit every person in a large gathering. He thought a good rule would be to use cold applications whenever they added to the comfort of the patient, as they would probably then prove useful; but if they caused discomfort they would be likely to prove harmful. Hot local applications are to be preferred if they seem to give more relief than the cold.

Medical Education in the United States.

The United States Bureau of Education has recently issued a pamphlet which gives, "A study of professional education in this country".

From this we learn a number of interesting and valuable facts. There are more than twice as many students of medicine as of either law or theology. Of the first there are 22,877, an increase of 1,085 during the year. There are 1,413 women engaged in the study of medicine, which is a variation of only six from the previous year. One interesting point is in the fact that although there was an increase of nearly 1,100 medical students, yet there was a decrease of 306 in the number of graduates. This decrease in graduates is probably due to the lengthened course and to the higher preliminary requirements. Probably the future will even show a greater percentage of decrease for these reasons. The endowment funds of all the medical schools combined do not equal that of either the Chicago Theological Seminary, the Princeton Seminary, or the Union Theological Seminary. Of 151 medical schools only twenty-one have libraries at all, and only six of these have over 5,000 volumes. There are over a million volumes in the theological libraries and only 87,259 in all the medical libraries. Of the whole number of 22,887 medical students over one-third are in the three cities of Chicago, New York and Philadelphia. The number of medical students in these cities is respectively 2,856; 2,726; 2,339. Six years ago the medical schools of New York enrolled nearly one-half of all the medical students in the United States. In 1894–5 they enrolled only about one-eleventh of the whole number. If the number of medical students continues to increase during the next few years as it has of late there will soon be medical schools with more than 1,000 students. Already the medical department of the University of Pennsylvania has more than four-fifths that number, while the Jefferson Medical College is close in the race. Rush Medical College, of Chicago, has more medical students, however, than any other college in the United States. It is said there are twice as many medical students in the United States as in France or Germany. The people make no complaint to the number of physicians, because they seem to think that it will be the same in medicine as with anything else, the greater the supply the less the cost. The pamphlet concludes with a number of tables giving a statistical review of the medical schools of the whole country.

The Retirement of Mr. Davis. The profession is probably generally aware of the fact that Mr. Geo. S. Davis, of the firm of Parke, Davis and Company, has retired as the active manager of the house. We are pleased to learn, however, that Mr. Davis retains his connection with the firm and will continue to give advice on the management of the business. It is with pleasure we recall our first acquaintance with Mr. Davis, which dates back nearly twenty years. He laid before us his ideas how such a firm as the one with which he was connected should be in the closest touch with the medical profession and how such a house should have departments exclusively devoted to the scientific investigation of medicinal and pharmaceutical problems. One of the first books issued by this house was our own *Manual of Histology.* About this time also Mr. Davis published for us a monthly periodical called *The Microscope.* Shortly after this he issued our work on *Microscopical Diagnosis.* All through these years Mr. Davis gave most careful attention to the literary and scientific works which were issued by his firm. It was in these early days when we needed opportunities for work that Mr. Davis showed himself a most valuable friend. Endowed with an immense amount of strength and energy, an indomitable will, and great executive ability, Mr. Davis will continue to be remembered as one of the greatest scientific pharmacists this country has produced. In recent years he has brought about him, in connection with the scientific and literary work of his house, a large number of some of the most devoted workers and best writers of the day.

Congratulations. *The Medical Record* completed its fiftieth volume with the close of '96. During all this time the journal has been under the same editorial management. It is unusual indeed that for thirty years the lives of editor and publisher should be spared to make such a statement possible. It is indeed more rare that they could honestly say to each other, "You have certainly done your part of it". We are surprised to learn that when the *Record* was first started it was almost the unanimous opinion of the profession in New York that such an enterprise must meet pith disaster. This is another illustration simply that success comes to those who are ready to do and dare. This young child sends greetings to its grand-parent with wishes that it may be present at the centennial celebration.

Advice to Authors. One of our exchanges has an interesting editorial on, "How to write for a Medical Journal". We are so impressed with its wisdom that we desire to give some directions to our own contributors.

1. Use none other than the upright system in writing.

2. Sit facing the table and have your feet rest on the floor or on some stool of convenient height.

3. Use an ink which is, "A pale blue at first but quickly turns to a permanent black".

4. Write strong, that is, use a stub pen, and bear down well.

5. Avoid profanity, and above all things do not repeatedly tell an untruth, that is, the same untruth.

6. It is not material what you say if you will only say it. Say it short and sharp. It is a good thing to make the reader believe you are a little mad.

7. Be sure and not write on only both sides of the paper, for when a typewriter is used it is difficult to make out the meaning when the lines cross each other.

We will be pleased to receive communications of any length based upon the above, and we will give one month's subscription to this journal for the same, provided the author enclose ten cents to pay postage!

St. Louis Ahead. Go to St. Louis for the latest. She will never give you anything old. A woman was arrested in the streets of that city completely intoxicated from the excessive use of camphor. An exchange says that this is, "One of the new developments in drug addiction". To be sure it is new and for that reason alone it could have had none other place for its birth.

New Use of the Telephone. A scientific journal says that earthquakes can be foretold by connecting a telephone to the pipes of deep artesian wells. "Any unusual noises in the bowels of the earth would be audible in the telephone and would indicate trouble." It has been our belief for some years that the peristaltic action of the bowels of the earth was rather vigorous and dangerous. But this high authority gives us an idea how we might use the telephone in private practice by having our patients swallow a fine metallic thread which could be attached to a transmitter so that the patient could be made aware of any unusual noises in his internal anatomy and thereby would be forewarned and thus forearmed.

A New Remedy by an Old Firm. To the residents of this city there is something famaliar about the word, "Ovarine". Merck, however, has lately introduced it to the profession as a new remedy recently discovered in Europe. After reading the descriptions of this product we must declare it to be one of the most dangerous remedies ever presented to the medical profession! Nitro-glycerine, strychnine and prussic acid are not to be compared to it. For poisoning from these remedies we have the stomach pump, incompatibles and heart tonics. But suppose that some physician in a moment of abstraction should thoughtlessly prescribe this remedy for one of his male patients! It would be better for such a man that he had never been born.

Hair and the Insane. Some of our exchanges have been copying an item to the effect that there is an unusual growth of hair upon insane subjects. Dr. Cantrell of Philadelphia, says he does not believe this. Has he never been to a ball game, or has he never seen a populist?

They Advertise Them. An exchange says that recent explorations in Pompeii brought to light the house of a surgeon in which were found over forty different kinds of surgical instruments. This makes us think of some physicians offices of more modern times. They have more instruments on exhibition than you can see in a first class instrument store! Of course a certain class of patients is wonderfully impressed with the tremendous brain power which must be required to manipulate such a vast array of the weapons of death.

Hard on the Readers of The Record. A correspondent sends a communication to *The Medical Record* on Leprosy, calling attention to the account of this disease as given in the Old Testament. He asks the question, "Do any of your subscribers ever read the Bible?" He then proceeds to tell them where in that book they can find, "Very interesting reading."

A New Murphy Button. A writer in the *Medical Sentinel* offers as a satisfactory substitute for the Murphy button in intestinal operations a roll of half-cooked biscuits. Having had something to do with the Washington boarding-house biscuit in years gone by we are inclined to believe that they would make better dog buttons than Murphy buttons.

Consult Your Dictionary. *The Kansas City Medical Index* says, "Do not any more pronounce neurasthenia with the accent on the t-h-e. It is by all authority 'neur-as-the-ni-a'; the accent on the penult—and a long i."

We would suggest to our exchange that he consult *Gould's Medical Dictionary*, then report where his "all authority" comes in.

Out in the Cold. The Ohio State Board of Registration has made something of a stir by passing a resolution that they will not recognize a medical college as being in good standing unless it has the clinical and hospital facilities based upon a population of 50,000. A large number of colleges throughout the country will get badly left under this ruling.

The latest fad is for the physician to drop to sleep in church. All worn out you know!

The Medical Record has an article on "Yaws", Does not Dr. Shrady know that Yaw is dead? If not, he had better climb up high to C.

E. B. Treat, the New York publisher, announces that he will have ready for publication in a few days the fifteenth edition of his *International Medical Annual.* Over forty physicians and surgeons have been engaged on this volume and we are assured it will present the world's progress in medical science. The volume will contain about 700 pages, and the price will be as heretofore, $2.75.

When Mr. Ruf sends you anything you may rest assured it is either most unique or most valuable or both, and when you know that Dr. Crusius had anything to do with it you know also that it is a work of art and generally an astonishment. Dr. Crusius has a great brush, so great that, either living or dead, we do not wish him to try it on us. Have you seen the Antikamnia Calendar for '97?

A physician hands us the following letter received at the Pension Office from a doctor in active practice: "I —— doe heare by Certy that I knowned the Clament —— for a bought tewelve years having lived in the same toown, all so being a Practin Phison and Practis for him and his famley for years have treted aplicant for the foling disese to wit Piles and Cetrrh all so an efection of th left eye an at times aplicant is hardly abel to atende to eny kind of buisness. I further state that is maid from whot I knowe of his case and not from eney memorandon what ever. I further state that the abov is not Due to Visus habet."

COMMUNICATION.

The Medical and Surgical Society.

At a recent meeting of the Medical and Surgical Society of the District of Columbia, Dr. Kober read a paper on The Prevention of Puerperal Fever. He opposed the view that this is a specific disease peculiar to the lying-in-woman. He thought a parturient woman in the same condition as a patient after a surgical operation and liable to all infections. He reviewed the various views of the etiology and held that any germ capable of producing the several manifestations of wound infection is capable of causing puerperal infection; therefore, puerperal fever is one of the many phases of septic infection. The mere presence of the germs is harmless unless there is a suitable soil for proliferation. In the majority of cases the germ is introduced from without, still there is evidence to show that infection may be produced by germs, which were in the genital tract before delivery. The author referred to the work and writings of Semmelweis, Spencer Wells, Garrigues and others in support of his views. He said, "The accoucheur who neglects the rules of modern mid-wifery certainly ignores established scientific truths, and though he may flatter himself with having had few if any cases of puerperal fever he does not deny that many of his patients suffered from some one of the numerous forms of puerperal infection which he mainly calls mere idiopathic affections". In view of the fact that Steffeck had demonstrated the presence of pyogenic germs in the vaginal secretion of thirteen out of twenty-nine women examined by him, he emphasized the necessity for antiseptic vaginal irrigation before delivery, and also the importance of placing the pregnant woman in the best possible health. He detailed rules for the lying-in-woman, which are essentially those in force in maternities, and spoke of the reduced mortality which has followed their adoption.

The paper was discussed by Drs. Bovee, J. T. Johnson, Forwood and Sothoron.

Dr. Johnson Eliot read a paper on The Therapeutic Action of Creasote. He gave the history of its employment in medicine, described the various preparations and the tests for its purity. Attention was called to the therapeutic application of the different compounds. Its principal usage was in typhoid fever and tuberculosis. It reduces temperature. In phthisis the good effects depend upon its power to destroy the bacilli; and its use here is satisfactory. He referred to the opinions of Weyl, Osler, Loomis and others as to how the good effects are produced. It does not predispose to hemorrhage; is especially useful in the initial stages of tuberculosis and pre-tubercular anæmia; and it is contra-indicated in phthisis florida of febrile type. In a sterilized solution, 1–4000 by volume, tubercle bacilli cannot develop and in more concentrated solution they are killed. The blood can be brought to such a condition by having twenty grains circulating in it. Large doses are required.

The discussion was by Drs. Mayfield, Forwood, Sohon and Sothoron.

Dr. Kober presented the report of the committee on Opium Abuses in the District of Columbia. The report was adopted and ordered incorporated in the published proceedings of the Society.

The Medical Society of the District of Columbia is responsible only for the "Transactions" published in this journal. It is entirely free from any connection with the Editorial and Business management.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Editing Committee:

W. W. JOHNSTON, M.D., GEO. M. KOBER, M.D., JAS. D. MORGAN, M.D.

(Continued from the January number. Meeting of October 28, 1895.)

Hypertrophy of Spleen. Intestinal Ulceration.

Dr. D. S. Lamb presented the following specimens:

I. Hypertrophy of Spleen.

The spleen was removed and weighed 108.5 ounces. It now weighs 113 ounces, apparently a gain of 4.5 ounces, after about two months immersion in a two p. c. formalin solution which was changed at intervals. He had noticed that even after several months a specimen did not lose weight in formalin solution but never before noticed an increase. The splenic substance was of an almost uniform deep red color and firm but in the formalin had changed to a brown. The capsule was much thickened over the convexity. Microscopical examination at the Museum showed a general hyperplasia of its substance, the tissue being crowded with large lymphoid cells some of which were multinucleated; there were a few myeloid cells.

The specimen belonged to the spleno- or lieno-medullary form of leukæmia, in which the changes are chiefly in the spleen and bone marrow; the lymphatic glands but little or not at all affected.

The patient was a white woman, widow, aged fifty-seven. It is said that she was for awhile in the Hospital for Incurables in this city. She came under the care of Dr. B. B. Adams about the middle of July, 1896, and he saw her three or four times, but he is now sick and it is impossible to get any data further than that she had pain in the splenic region and gradually failed until she died. Something was said about her having had malarial disease but nothing certain was known. There was no diarrhœa.

The necropsy was limited to the abdomen, and was made under difficulties. The skin was dark, and the body somewhat emaciated; there was an ulcer on the back of the right thigh the cause of which was not clear. The body had been embalmed and the organs were blanched by the preservative fluid. Stomach, intestines and liver seemed to be normal; the spleen as described; the kidneys normal. Uterus and ovaries atrophied. No examination was made of bone or blood.

II. Intestinal Ulceration.

Specimen of lower part of sigmoid flexure and upper part of rectum, opened longitudinally; the bowel was much distended; mucous membrane thickened and ulcerated; one large ulcer measured five by four inches and there are several smaller ones. They penetrated more or less deeply into the muscular coat and were undermining and sloughing. There were recent adhesions of the flexure to bladder and abdominal wall. Spleen much enlarged and dark. Old adhesions of greater omentum to hepatic flexure by a long cord; and a similar cord between the intestines in the right lumbar region. Kidneys large; bladder empty.

The microscopical examination at the Army Medical Museum showed severe fibrous inflammation of the bowel; chronic passive congestion of the spleen with pigmentation, and capsule thickened; kidneys acutely congested; and pancreas normal.

Dr. H. H. Barker, the attending physician, gave the following history: The patient was a white man, aged forty-five. About the year 1886 he was dangerously ill with what was diagnosticated as a severe inflammation of the bowel. He afterwards frequently suffered with indigestion and headache without however interfering with his attention to business. His urine was often examined and showed the constant presence of some sugar and occasionally a little albumen. In 1895 he was treated by a physician for diabetes and pronounced cured; but on applying for life insurance was rejected because sugar was still found in the urine. About the middle of June, 1896, his bowels became loose and so continued; later he had chilly sensations and fever. July tenth, he had a pronounced chill and Dr. Barker was called. Temperature 102°, pulse 120; had several dark loose stools, sometimes a little blood; no tenesmus but constant rectal pain; tongue thickly coated white; abdomen much distended with flatus; some tenderness over sigmoid flexure. He was given milk diet; calomel followed by quinia, codeia and pepsin; hot fomentations to abdomen. Next day the temperature was about 100°; he had had three stools, dark brown in color from presence of bile; urine still scanty but passed without difficulty; there was a fourth or half per cent of sugar as shown by fermentation test and a trace of albumin; there was less flatus, pain and tenderness. During the day he had a large, tarry, jelly-like, very offensive stool which was believed to contain altered blood and mucus. A rectal tube was inserted fourteen inches, and two gallons of hot boracic acid solution injected. At first he passed a stool of black offensive matter like that above mentioned; afterwards the fluid was almost clear and with little odor. He was given bismuth by mouth and iodoform suppositories were used. Next day, the fifteenth, temperature 102°; no further chill; some retention of urine. Dr. Schæffer examined the urine and failed to find either sugar (by Fehling's test) or blood; but there was much biliary coloring matter; patient had had four to six stools in twenty-four hours, like those described; no tenesmus. The bismuth was stopped and lead acetate and opium given. From this time the quinia failed to influence the temperature. On the sixteenth and seventeenth he had two stools in each twenty-four hours and with less odor. He refused further douches. His condition on the eighteenth was about the same as on the eleventh; temperature 100 to 102.5°. On the twenty-first Dr. R. S. L. Walsh saw him in consultation; and on the twenty-seventh, Dr. N. S. Lincoln. They agreed with Dr. Barker in a diagnosis of ulcer in vicinity of sigmoid flexure. On the twenty-fifth, there was complete retention of urine, and he was catheterized several times daily until August third. The urine drawn was about thirty-five ounces daily; dark amber colored and without bile. On the thirtieth, a second rectal douche of boracic acid was given. Hydrastis was given by mouth. He passed about half an ounce of clear blood. August seventh to ninth, temperature 103°; considerable hemorrhage each day. He was taking half a gallon of milk daily and it seemed to digest well. On the tenth, temperature rose to 106° and he died.

During most of his illness he had four to twelve stools daily, four to twenty-four ounces each; when in large quantity they were less frequent.

MULTIPLE CYSTOMA OF LIVER.

Dr. J. Wesley Bovee said that the history of the case from which the specimen presented by Dr. Lamb was secured, was as follows:

He had had her under observation from February last, until the time of her death, in the latter part of August. She had had an abdominal growth for some years that varied in size, in the judgment of the patient, and had given her considerable distress at times and from which she had received the greafest relief from a trip to Europe during which she had severe sea-sickness, and again from a trip to the Pacific coast last year. When I began attending her in February, she was suffering from severe attacks of asthma, worse at night and preventing her from assuming the recumbent position; almost constant eructations of gas, cold extremities, weakness of circulation and a considerable loss of flesh had occurred during the last few preceding months. The lungs gave no signs of disease, but the heart action was very feeble though the organ was hypertrophied. The abdomen was quite large and the growth extended from the liver downward, being most pronounced on the right side, though crossing the median line to the left; it extended nearly to the symphysis pubis, was of the ordinary consistence of the liver, as well as could be ascertained through the thin abdominal walls, and it could not be separated, even by a sulcus, from that organ. The quantity of urine was small and contained quite a large proportion of albumen and numerous granular epithelial casts of the uriniferous tubules of the kidney. Her condition improved somewhat and in April I consented to a trip to Old Point Comfort. She started on a very hot evening when the atmospheric temperature was at ninety-four degrees, but during the night on the river a severe rainstorm came and the temperature rapidly fell about forty degrees. It remained cold during her stay there of two weeks and on her return her condition was very much worse than I had previously seen it. All the symptoms were exaggerated. I repeatedly examined the abdomen and had she been in a better state of health would have suggested abdominal section, at least to explore and discover the nature of the growth. She slightly improved in her general condition but the intermittent heart action and other signs went to demonstate it to be a hopeless case. At this time I should mention that œdema of the lower extremities set in, as well as that small, nodular masses appeared at the upper margin of the right lobe of the liver and around the lower and left border of the portion extending toward the pelvis. At times these gave a sensation of fluctuation, and I was tempted often to explore them with a hypodermic syringe, but was deterred by an experience I had recently with two cases of cancer of the liver, in which such soft portions had broken down and bled and in which I had to resect the liver, to temporarily stop hemorrhage. In June ascites came on slowly and the patient, though not confined to the bed, seemed to be gradually failing. Up to this time I had not been allowed a consultation but now she allowed me to call Dr. J. Taber Johnson, who with me, thought it was a case of cancer of the liver. She gradually failed and died in the latter part of August at the age of sixty-four.

Autopsy, five hours after death. The abdominal cavity was opened and this specimen removed; the kidneys were small but not opened. No cysts were felt on their surfaces. The large mass described above was found to be the specimen shown. The larger portion of the cysts were on the superior and posterior surfaces of the organ; the contents of the hundreds of cysts seemed to be a clear thin fluid like water.

Dr. Lamb said: The liver which Dr. Bovee presents weighs eighty-four ounces. The contents of the cysts, examined by Dr. Reed of the Museum, were a clear fluid, in all probability quite albuminous, and a little flocculent fatty matter; fatty degeneration of cells. There is an incipient cirrhosis, which indeed is usually found in these cases. The cyst-wall is often lined by ciliated columnar epithelium.

The cause of this degeneration according to some writers, is vacuolation of liver cells; the vacuoles melting into each other and thus forming the larger cavaties; the wall being probably mostly composed of the connective tissue or Glisson's capsule of the liver. Other writers however give another explanation, namely that the cords of liver cells are first transformed into fine canals and these afterwards become cystic.

The ordinary cysts of the liver are either hydatid cysts, due to the echinococcus; or are due to dilatation of the finer biliary canals by the accumulation of mucus from the mucous glands of these canals and are lined by flat or cylinder epithelium which may be ciliated.

In 1879 as some members will remember, Dr. Triplett showed a specimen like this of Dr. Bovee's. It is number 8,955 of the Pathological Series of the Army Medical Museum. Dr. J. J. Woodward of the Army, then in charge of a portion of the Museum collection, made a microscopical examination and concluded that it was a case of this kind. I do not think that the case was ever published. It was a coroner's case and no history was obtainable. The cysts were lined with pavement epithelium.

Quite a number of cases have been reported, in some of which there was also multiple cystoma of the kidneys without however there being any probable connection between the two. The extent to which the liver is involved varies much and some cases die of intercurrent disease.

PUERPERAL MALARIAL FEVER.

By Henry D. Fry, M. D.

Under this term I wish to describe a fever, of greater or lesser severity, of a continuous character, beginning soon after child-birth, and due to malarial intoxication. At once the difficulty appears of differentiating such a fever from ordinary puerperal sepsis. The danger of the error that might result has been kept carefully in mind and has, for some time, delayed my purpose of calling attention to the subject.

It is far safer to treat malarial fever for sepsis than vice versa and my fear has been that more harm than good might come from a paper directing particular attention to malarial fever complicating the puerperium. The occurrence of a severe case of the disease which caused me the greatest anxiety, and others seen in consultation more recently, have finally led me to brave these dangers, hoping to offset them by calling attention to the careful differentiation of the two affections.

It is well known that pregnancy offers a certain immunity against the outbreak ef malarial manifestations. On the other hand the conditions existing after childbirth awaken the dormant properties of the poison. Fortunately the milder types of the disease are met with; periodical neuralgia, or fever, either intermittent in character or with marked exacerbations having distinctive periodicity.

I have observed not a small number of such cases in my hospital and private practice but all have yielded to the free administration of quinine. During the present year eighteen per cent of the women delivered at Columbia lying-in Hospital developed intermittent fever after childbirth. Passing over the milder and more characteristic manifestations of malarial poisoning to the graver and less distinct form of the disease occurring during the puerperal period, I will first briefly report the following case:

Mrs. X—, a primipara, was delivered by forceps December 24, 1894, after a tedious labor. She gave a history of having contracted malaria in September 1893, while visiting in Massachusetts. The disease was of an intermittent type and promptly yielded to treatment, Again in June 1894, she had a recurrence. She was pregnant and the affection failed to respond to treatment so readily. The attacks were of the tertian form and persistently recurred until the latter part of September. From this time until confinement she was in excellent health.

On the morning after delivery the temperature was 99.2°; in the evening 101°. The highest rise during the next day was 104.3° at 4 p. m.; and the following day at 7 p. m. it reached 105.4°. The next morning it came down to 99.8. In the meantime the patient had been actively treated for puerperal sepsis, although there were no indications pointing to that condition other than the existence of fever. Intra-uterine irrigations were administered every three hours; the vagina kept clean and lacerations cauterized, and dusted with iodoform powder after each irrigation. There was no odor to the lochia, no sensitiveness about the pelvic organs, the uterus was undergoing involution, and the expressisn of the patient contra-indicated a septic condition. Quinine was given in four grain doses, increased on the second day to eight grains, and later to ten grains at a dose. The patient was very sensitive to the effect of the drug and profound cinchonism opposed pushing it further. After the fourth day the intra-uterine irrigations were discontinued as they produced no apparent effect upon the fever. At this time the blood was examined by a competent microscopist who reported undoubted evidence of malarial poisoning. On the sixth day when the temperature had dropped to 100°—a lower point than for some time—fifteen grains of tartrate of urea and quinine were administered hypodermatically and followed by forty grains of the sulphate by mouth during the succeeding night. The following day thirty grains were given from 8 a. m. to 6 p. m.

No impression upon the fever resulted. On the seventh day, three intra-uterine douches were given but discontinued again as no good effect was apparent. The fever was continuous and on the eighth day reached its highest point, 106°. Blood examination made by another microscopist confirmed the result of the first examination. Microscopical examination of the uterine secretion was negative. On the twelfth day of the puerperium the uterus measured 3⅜ inches.

The patient now presented a serious condition. The continuous high temperature was telling severely on her strength. She was delirious, her tongue was dry and coated, and she presented the symptoms of a low typhoid state. Arsenic, cold sponge baths, milk, beef juice and whiskey completed the treatment. The application of the ice cap and the hypodermatic use of morphia acted well in quieting the excited nervous state. The bowels were inclined to be constipated and calomel triturates, sulphate of magnesia or enemata, were used to overcome it. On the evening of the fifteenth day the temperature registered 103.8°. The next morning it was normal, and remained practically so for seven days. The patient recovered rapidly and was sitting up when on the afternoon of the eighth day of convalesence the temperature suddenly shot up to 103.7°. For the next three days it remained between 103.2° and 104.5°; it then gradually abated and became normal after the seventh day. The patient experienced no further trouble and was completely restored to health, although annoyed for some months by deafness and tinnitus aurium. She has since been confined again and without complications.

The following additional cases have more recently come under my observation and will be briefly referred to:

Dr. Henderson Suter delivered Mrs. S. of her second child May 16, 1895. Fever developed on the third day after childbirth and continued daily thereafter with evening exacerbations reaching 105°. Intra-uterine and vaginal douches were administered daily. I saw the patient in consultation June 6, the eighteenth day of fever. I removed with the dull curette a small quantity of decidual tissue but there was no odor or sign of uterine infection. The uterus was then washed out with a two per cent carbolic acid solution and packed with iodoform gauze. The immediate effect of the manipulation was to increase the fever. I saw her two days later and there was no improvement in her symptoms. The continuous fever, the absence of indications of septic infection, and the general appearance of the patient led me to advise the free exhibition of quinine, and immediately the temperature fell to normal. For the next three weeks the drug was given daily and less than thirty grains failed to prevent temporary excursions of temperature.

On October 8, 1895, I was called in consultation to see Mrs. D. Dr. W. S. Dixon, who had charge of the case, kindly furnished me with the following history:

October 2nd, the patient had a chill followed by the usual symptoms of malarial fever, the temperature running up to 105°. On October 6th, the temperature was normal and remained so for twenty-four hours. Labor then took place and was remarkable only for its brevity. The day after childbirth the fever returned, preceded by slight rigor. I do not remember the date you saw the patient, but temperature was still very high and the malady more resembled a remittent fever. At the time of my visit the fever was 105°. A careful local examination failing to show any cause for the condition, Dr. Dixon, at my suggestion, had a specimen of her blood examined the same afternoon and the presence of the plasmodium was detected. Quinia in full doses brought the temperature to normal the next day. Two hundred and thirty-five grains were given during the succeeding week and the patient made a rapid convalesence.

On June 21, 1896, I was called in consultation by Dr. H. J. Crosson to see a woman whom he had delivered five days before, and I am indebted to him for the following notes:

Her early life had been spent in a malarious section of the city and she had suffered from chills and fever. In the summer of 1895, Dr. Crosson had attended her for an attack of intermittent fever of the tertian type. She had given birth to three children. On June 16, 1896, she was taken in labor at the eighth month of pregnancy. The first stage was tedious, lasting twenty-four hours, and the birth was terminated by forceps at the outlet. Fever developed on June 18th, and vaginal and uterine douches were administered. On June 22nd, I curetted the uterus with negative result. On the twenty-third and twenty-fourth local antiseptic treatment failed to influence the fever. Suspecting a malarial complication, quinine was ordered and the temperature was reduced to normal in four days. Dr. Crosson reports that, "The amount of quinine given was about forty grains daily for two weeks, and at no time did she seem profoundly cinchonized".

During the last month I have had under my care three cases of puerperal malarial fever. One occurred at Columbia Hospital and the temperature reached 104° the day after labor. Full doses of quinine brought it down to normal after the third day and convalesence was uninterrupted. The second case was briefly as follows:

Mrs. S., primpara, was confined September 10, 1896. The patient had passed the summer in Virginia, near Leesburg, and several members of the household have suffered from malaria. She herself had periodical headaches which were cured by quinine. During the last month of pregnancy she suffered from œdema of hands and feet, shortness of breath, and palpitation due to cardiac weakness. The urinary analysis had been, and continued to be, satisfactory. Rest was enjoined, stair climbing proscribed and strophanthus administered.

Her labor progressed satisfactory, child in L. O. A. position, until the head reached the perineum. Voluntary expulsive efforts produced cardiac distress in spite of the careful administration of ether. The pulse became intermittent and breathing labored. Fearing serious heart exhaustion the labor was terminated by forceps. Patient did well until the twelfth day. That morning the temperature was normal; in the evening it was 100.4°.

A purgative was ordered, diet restricted to liquids and vaginal douches ordered of carbolic acid solution. The next day, September 22nd, temperature at 9 a. m., 101.2°; 6 p. m., 102°. Local examination failed to disclose any condition to account for the fever. Involution had progressed nicely and the discharges were normal. Nevertheless, fearing the existence of sepsis, two intra-uterine douches of carbolic acid solution were given, and the return fluid came away clear.

September 23rd, 9 a. m., temperature 100.4; another intra-uterine douche given with negative result; at 6 p. m. temperature reached 103.6 in the axilla. Blood examination negative. Quinine administered with the following effect:

At 11 p. m.,	temperature	103.8,	12	grains	Quinine
At 3 a. m.,	"	101.8,	"	"	"
At 7 a. m.,	"	100.4,	"	"	"
At 1 p. m.,	"	99.2,	"	"	"
At 7 p. m.;	"	98,	"	"	

Sixty grains of quinine were administered in twenty-four hours. Cardiac stimulants were necessary to counteract the depressing action of the drug. Eight grain doses, three times a day were ordered, but proved insufficient as the fever returned the next evening. It reached 100° and another blood examination made at this time revealed the malarial organism in embryonic form. Eight grains every four hours prevented a recurrence of fever and the patient made a good convalesence.

The last case which was recently under my care is of particular interest as bearing upon the subject of diagnosis since it was apparently one of mixed infection, that is of septic and malarial poisoning combined.

Mrs. B. was six months advanced in her first pregnancy when she commenced to discharge, without cause, what later proved to be, liquor amnii. Uterine action not coming on she was kept in bed with the hope that she was suffering from endometritis decidua catarrhalis. On the eighth day, however, labor pains set in. Examination revealed the following condition: Liquor amnii evacuated and the uterus tightly contracted on its contents; the fœtus presenting by its left shoulder, head in left iliac fossa and extremities in front; the cervix not effaced and dilatation only sufficient to insert one finger. Labor pains continued during the day with little effect. At 7 p. m., about four inches of the funis had escaped into the vagina and its pulsations were feeble. At ten o'clock the patient was etherized, the cervix dilated manually as large as a silver dollar and the cord was replaced. The edge of the placenta was detected low down on the left side. The uterus was contracted so firmly on the fœtus I was unable at this time to produce version. The pains were much increased until 3 a. m., when they ceased. Anæsthesia was again induced and dilatation had now progressed so that I readily succeeded in bringing down a foot. The labor was terminated by uterine action and the placenta promptly expelled.

Patient did well until the third day when her temperature went up to 103°. The lochia were very free and of a sero-sanguineous character with decided odor of putrefaction. Lacerations at the cervix and fourchette were cauterized with equal parts of iodine and carbolic acid and intra-uterine and vaginal douches of antiseptic solutions were commenced, at once, and kept up regularly for eight days.

The local condition began promptly to improve; the return fluid bringing fewer shreds, the odor of the lochia disappeared in two or three days, and it changed to a muco-purulent and then mucous discharge. At first the fever improved with the improvement of the local condition, coming down in a few days to 99.4. Finally when the septic endometritis seemed entirely overcome, the fever pursued an erratic course running between 99½ and 102½. Chilly sensations were felt and on the evening of the tenth day, a distinct rigor occurred followed by high fever and sweat in quick succession. There was no indication of pus formation or any condition to account for the paroxysm. Quinine was given and the temperature promptly fell to normal, and patient recovered without further delay. An effort was made to obtain a blood examination but the specimens were unsatisfactory.

The reasons for considering that septic and malarial poisoning co-existed were:

The difficulties of the labor and the necessary interference were such as to invite sepsis although every precaution was exercised to prevent it. The fever, fœtid lochia and endometritis, pointed to the existence of infection. By prompt and vigorous antiseptic treatment the local condition was corrected as evidenced by the subsidence of fœtid lochia and disappearance of shreds from the return fluid during irrigation.

At first the temperature fell with the improvement of the local condition; then, without apparent cause, chilly sensations and erratic temperature rises were manifested. Finally a distinct paroxysm of chill, fever and sweat occurred. That these later symptoms were not due to extended infection or pus formation is proved by the immediate cessation of all symptoms and entire recovery of the patient after the administration of quinine.

The differential diagnosis between puerperal malarial fever and puerperal septic fever is of vital importance. The vast majority of all fever cases following childbirth is of septic character, and the great danger lies in overlooking the true cause and losing valuable time by neglect of proper local treatment

The diagnosis of malarial fever appeals strongly to the conscience of the attending physician and it is very comforting to him to reach that conclusion, since the public is so well imformed at present that the occurrence of puerperal fever carries with it an inevitable sense of responsibility.

The safest course to pursue, is to treat all cases of fever during the early puerperium as septic until proved to be otherwise. If the diagnosis will prove to have been incorrect no harm will have resulted from careful antiseptic local treatment.

In arriving at a diagnosis the previous history of the patient and the history of her confinement will help to throw some light on the subject. If it be ascertained that the patient has resided in a malarious section and particularly if investigation reveals that she has been subject to attacks of intermittent fever, the possibility of a malarial complication is increased.

The cases I have met with of mild and severe types of the disease emphasize the value of this observation. Also the history of a normal confinement conducted according to strict antiseptic rule, followed by fever, would tend to confirm the same diagnosis.

On the other hand a case presenting a negative history, regarding malarial exposure, and no evidence of previous attacks of the disease, would assist in excluding that complication and the likelihood of sepsis would be further increased if there were a history of difficult or instrumental delivery, of adherent placenta or of the birth of a macerated fœtus.

So much for the previous history of the case. Now to come down to the main question at issue let us imagine ourselves face to face with a woman, recently delivered, and having a fever, continuous in character, and of doubtful etiology. Carrying out the suggestion I have already made we will at once begin to treat her under the supposition that she is septic. The diet will be regulated and the bowels unloaded. A careful local examination will be made with the view of discovering any lacerations that may permit the entrance of poison, and if found these will be cauterized. Bimanual examination will reveal the progress of involution, the state of mobility of the uterus and the presence or absence of inflammatory exudates and adhesions. Supposing this information to be negative we next examine the character of the lochial secretion. Finding this normal and free from odor we accept at least the evidence of absence of putrefactive germs and decomposing debris. The condition of the interior of the uterus may be interrogated by the dull curette, followed by antiseptic irrigation and iodoform gauze packing.

So far our information is entirely negative, and if active treatment be further demanded, until the true character of the attack be ascertained, repeated intra-uterine irrigation with hot antiseptic solutions should be carried out. Failure to produce any impression upon the fever would add still further to the negative evidence.

Some assistance in making a diagnosis may be obtained by the attention to the development and course of the febrile disturbance.

Septic fever usually begins from the third to the fifth day. Malarial fever has no regular time for its appearance. It may follow the physiological rise of temperature immediately after childbirth; it may commence in twenty-four or thirty-six hours later, or it may be postponed until the second week of the puerperium.

In puerperal malarial fever the temperature quickly reaches a high point, 104 or 105°; it is subject to remissions but as a rule it pursues a higher range than septic fever.

A valuable diagnostic sign is the appearance of the patient. There is an absence of the peculiar pinched and anxious expression of the countenance which is so common in septic fever. The difference is marked even between a case of mild septic and one of severe malarial fever. Dr. Richard C. Norris considers a proportionately low pulse rate to the temperature rise as a valuable diagnostic sign of malarial fever complicating the puerperium. In fever due to sepsis the pulse rate is relatively higher. Sensitiveness of the uterus is not uncommon in puerperal malarial fever and does not point necessarily to local infection.

Of positive evidence the greatest importance should be placed in the blood examinations. This means of differentiating malarial from septic fever is one of the most gratifying triumphs of modern science. The service of a competent microscopist should always be secured and it is better to withhold the exhibition of quinine until the specimen of blood has been obtained. Failure to discover the plasmodium in some of its forms should not be accepted as evidence of its absence until repeated examinations have been made.

In the absence of facilities for making blood examinations, valuable aid in arriving at a diagnosis may be obtained by the administration of quinine. To secure the specific action of the drug in these cases it is necessary to give it in full doses. Fifteen grains three times a day will sometimes fail to make any impression. In two or three cases reported in this paper the course of the disease was uninterrupted by quinine and terminated only by self limitation. This occurred in one of the cases although profound cinchonism was kept up and the patient suffered from deafness and distressing noises in the ears for months after recovery from the fever.

It is well to prescribe occasional doses of calomel during the administration of quinine.

The prophylactic treatment of puerperal malarial poisoning, whether manifested during pregnancy by periodical neuralgia or intermittent fever, is most important. Quinine and arsenic should be administered throughout the remaining period of utero-gestation.

DISCUSSION.

Dr. W. W. Johnson said: Twelve or fifteen years ago he had read a paper on this subject before the Obstetrical Society, in connection with the then just published views of Dr. Fordyce Barker on

Puerperal Malarial Fever. In this paper he had claimed that a large part of the cases described by Dr. Barker were not of malarial origin but were purely septic in nature. Now the pendulum seemed to be swinging back again in the other direction, and the effort is made to differentiate the malarial from the septic cases. A remarkable feature brought out by Dr. Fry is the great predisposition to malarial fever which these puerperal women showed, eighteen per cent of the cases of labor in the Columbia Hospital having a tendency towards this complication. But perhaps this predisposition is unusual and is due to the greater prevalence of malaria during this, as well as last year. The symptomatology, too, of the cases reported by Dr. Fry was interesting; there was nothing in the charts shown that was really diagnostic of malarial fever, so that we could not base a diagnosis of the disease solely upon them. If these were malarial fevers, then puerperal malarial fever had a different fever curve from our malarial continued fever. The question was then: was there any mixed infection in those cases? Another point to be considered is that they were not influenced by large doses of quinine. He had seen several cases of puerperal septic fever in which the fever curve was of a much more pronounced intermittent typo than was shown in these charts of puerperal malarial fever. The diagnosis of malaria in the cases of Dr. Fry's was made doubtful by the fact that though large doses of quinine were given no effect was obtained from them. Where the plasmodium malariæ was found it, of course, furnished positive proof of the existence of malarial infection, but in the failure of quinine to control the fever there was a reasonable probability of the infection being mixed.

Dr. Jos. Taber Johnson said: Three cases of puerperal malarial fever occurred to his mind in which the evidence of malarial trouble was much more marked than in the cases pointed out by the essayist. In one of his cases everything had gone well for several days after the confinement; there were no lacerations, and the lochia were natural. In a few days, however, the temperature jumped up to 105°. Thinking that she might have puerperal fever, though her appearance did not indicate it, he made a careful examination, and finding everything normal, he became very certain that it was not a case of regular puerperal fever. Upon further investigation he learned that there were six people about the house and grounds suffering from chills. Then, remembering Dr. Fordyce Barker's paper, he made up his mind that it was a case of puerperal malarial fever, and administered twenty grains of quinine daily for seven days, and she never had a return of the fever. The pulse was not so rapid as in puerperal fever and she did not look ill.

Dr. Mackall said: I have no doubt of the existence of a malarial puerperal fever as described by Dr. Fry. I have observed somewhat similar cases almost from the time that I began practice.

In the beginning these cases present all the evidences of the remittent form of malarial fever, and if not checked in the early stage run a prolonged course. Presenting many of the symptoms of septic poisoning, occurring simultaneously with or soon after delivery, we find it difficult to divest ourselves of the idea that they must be cases of childbed fever, and I admit that it is sometimes a difficult thing to decide whether we have to treat a malarial fever, or what is known as typhoid fever or a fever due to sepsis. Of course to the bacteriologist, it will be clear that we have in Lavaran's plasmodium a certain diagnostic test which ought to be conclusive as to the diagnosis, but while I am free to admit that it is highly presumptuous in me to undertake to question the dicta of very high authorities, still I am not satisfied but that for these experiments, more conclusive evidence is needed to assure us of the perfect reliability of this test.

Then again, doubtless, it may be thought that there ought to be no question of our being able to decide between a malarial and an enteric fever, since we have been led to believe that in Eberth's bacillus we have a positive demonstration of the latter. But it has been recently stated by very high authorities that Eberth's bacillus may be altogether absent from the intestinal discharges even in undoubted cases of typhoid, so that even a bacteriological examination is not decisive. As Dr. Fry had pointed out one of the most reliable symptoms or indications of malarial puerperal fever was that furnished by the expression or face of the patient. Even after the patient had been sick for a long time with a high temperature, running up sometimes to 105° and over, these patients express themselves as feeling remarkably well, and judging from their general appearance they would not be supposed to be seriously ill.

True there is another test which should be referred to for it is held by many physicians that the administration of quinine is conclusive whether we have to deal with malarial fever or not, for in their opinion if the disease yields to quinine it is malarial, and if it does not yield it is not. To this dogma I must totally dissent. For while I believe that quinine may be said to be a specific in the treatment of malaria so long as the poison has not lighted up congestive changes in the mucous membrane of the gastro-intestinal canal and in the liver, but after this results it is no longer a specific, it is no longer beneficial, but on the contrary prejudicial and it is not improbable that the prolonged course of some of the cases referred to by Dr. Fry may have been the result of the long continued use and very large doses of this drug. As to the treatment of these cases of puerperal malarial fever I have found the expectant plan most satisfactory, keeping the patient on bland liquid nourishment, giving stimulants only as required, and using quinine either by inunction or hypodermically, not with the expectation of breaking up the fever, but only as a nerve tonic.

Dr. Wm. B. French said: That he would suggest when fever occurred in puerperal cases unless the local conditions indicated septic trouble, an examination of the blood be made before the patient was subjected to intra-uterine injections and, possibly, curetting, both of which were not devoid of some danger.

Dr. Mary A. Parsons said: She remembered a case which had occurred several years ago, where the wife of a physician had taken ten grains of quinine; after nursing, the child previously healthy, had been seized with convulsions, and later in the night had a second attack in which it died.

Dr. Samuel C. Busey remarked that some authorities suggested the administration of quinine during pregnancy in cases of malarial infection. It was believe by some that quinine tended to produce premature labor.

Dr. Wm. Ward said: That Dr. Fry seemed to him to entertain two opinions concerning the so-called puerperal fever: one being that it is a distinct disease, and the other that it is malarial fever complicating parturition. Puerperal fever is independent of malaria, and malarial fever is independent of the puerperium. The term puerperal malarial fever is on a par, nosologically, with typho-malarial fever, and is just as erroneous in his (Ward's) opinion.

Dr. Geo. M. Kober said: He merely wished to emphasize the necessity of making a prompt examination of the blood in these cases before resorting to severe treatment. At all events this must be done before the administration of quinine. He understood from Dr. Fry that he had found the plasmodium malariæ in the blood of these patients even after the administration of quinine. This was very unusual.

Dr. Fry said, in closing the debate: That he had stated in his paper that he wished to consider only grave and obscure cases. Eighteen per cent of the labor cases occurring in the Columbia Hospital had symptoms of malaria, in mild form, sometimes with enlarged spleen, but he wished to speak only of grave or indistinct cases. These cases were presented because they were more obscure, and because they were uninfluenced by quinine. Dr. W. W. Johnston had intimated that they were not malarial for that reason. The real reason why they had not responded to quinine was because still more heroic doses should have been given. Norris, of the Preston Retreat, speaks of the very large doses necessary in these cases. One of the fever cases cited had not yielded to treatment, although she became profoundly cinchonized by the doses given, yet it was an uncomplicated malarial attack as the history demonstrated. If the disease were checked by this means then it was undoubtedly malaria, but if it did not do so it was no proof that it was not malaria. Dr. Mackall had also spoken of giving quinine in the early stage of the disease and contended that later on it was worse than useless, yet in a case referred to him the patient had not been given any quinine during the eighteen days of her illness, and he advised the use of quinine, and the next day her temperature was normal. Drs. French and Kober had urged the importance of early blood examinations. In his paper Dr. Fry had also spoken of this necessity, but at the same time it was impossible to wait when the symptoms were urgent. At least we might give local treatment, which would not interfere with the blood examination. In reply to Dr. Parsons query, he stated that the high fever had always caused the breasts to dry up, so the babies were all artificially fed. He considered the condition of the pulse a good test in differentiating between sepsis and puerperal malarial fever, and Norris stated the same thing. Another point in the diagnosis was the expression of the facies, and a temperature of 105° or 106° in puerperal malarial fever would not produce such a pinched expression as in septic fever.

Dr. F. P. Vale suggested that in behalf of a more scientific diagnosis it would have been better to withhold quinine until the blood examination had demonstrated the presence of the plasmodium.

Dr. Fry repeated that he advocated the withholding of quinine until an examination had been made, but not to withhold the use of the curette.

MEETING OF NOVEMBER 4, 1896.

Dr. S. C. Busey, President, in the Chair.

I. Nephrechomy.

Dr. J. Taber Johnson presented a specimen with the following history:

Mrs. S., white, mother of six children, youngest two years old, consulted me last June, in regard to a tumor in her right side, which had been diagnosed as cancer of the kidney. Her condition was so unfavorable for operation, that I declined to receive her as a patient, or to operate.

Subsequently I yielded to her urgent request and decided to make an exploratory operation. She entered Sibley Hospital, where I operated on the 13th of October. I had no very clearly defined opinion about the cause or nature of the tumor. I thought she had had it too long to be cancerous, and her symptoms pointed more toward a septic condition due to the absorption of pus. Her urine was constantly loaded with pus. The tumor was as large as a good sized child's head, did not fluctuate, and seemed as hard as a rock. It seemed impossible to remove it from the lumbar incision. I made an incision directly over the tumor, through the right semilunaris, and passed my hand over to the other side, and thoroughly examined the other kidney, which appeared to be normal. After cutting through the posterior peritoneum I separated it from the transverse colon, to which it was adherent, and proceeded to enucleate the tumor, which was evidently not malignant. When this process was partly completed my fingers tore through its walls, and out gushed about a quart of pus. Passing my fingers into the cavity, a large stone was discovered, which was easily removed. One or two other pus cavities were opened into and the tumor was enucleated, tied off and removed. The ureter was ligated and dropped, after being disinfected. The cavity was thoroughly washed out with sterile salt solution, and packed in with gauze, partly for the purpose of suppressing some slight oozing from torn surfaces, and the wound closed up around the gauze.

The patient seemed to stand the operation fairly well; this lasted about three-quarters of an hour, but she never completely rallied, and died a little after midnight of the same day. I now believe if the correct diagnosis had been made, the kidney might have been opened and drained through the lumbar incision, the stone removed, and the patient had a very much better chance of recovery, especially if it had been done six months sooner.

The case is reported on account of the following interesting points: The very large size of the calculus; the very large size of the abscess; the various errors in diagnosis; the unusual determination of the patient to have an operation; the probable success of a lumbar operation, had a correct diagnosis been made, and also how far surgeons are justifiable in operating on apparently desperate cases.

II. Hysterectomy.

A patient consulted me with the request for an operation. Upon examination I found the pelvis blocked up by a hard mass, which appeared to be the enlarged body of the retroverted uterus. Upon firm manipulation this was pushed above the brim of the pelvis, which caused the pelvic mass to disappear. From the nature of the discharge, the uterus evidently contained either a cancerous growth, or a sloughing fibroid polypus. Dr. Fry saw the case in consultation, a day or two afterwards, and agreed with me that an operation presented no unusual difficulties. She accordingly came to my hospital, and I removed a day or two later, what appears to be a cancerous uterus: the operation was a combination of the vaginal and abdominal methods, and was done two weeks ago. The patient is, at the present time, doing fairly well, notwithstanding the facts, of her being fifty-three years old, and greatly reduced from the effects of hemorrhage, pain and morphine.

Dr. Johnson presented a second specimen of a uterus removed by the Baer method. The patient was reported as doing well.

DISCUSSION.

Dr. J. Wesley Bovee, in discussing the case of nephrectomy reported by Dr. Johnson said: Many members of the Society would probably remember the case of nephrectomy that he had reported to the Society last year, in which the patient died a few hours after the operation. About a quart of pus and 555 grains of calculi from the kidneys was removed; the kidney shell was thought to be useless and was removed. The calculi and kidney weighed thirty ounces. At the autopsy the other kidney was found shriveled and weighed about half its normal weight, and was thought to be practically functionless. That case taught him a valuable lesson, and since that time he had quite carefully studied the literature of kidney surgery, and had concluded that nephrectomy was a dangerous operation and very seldom indicated. Of course there were cases in which it was demanded, such as severe infection of the kidney, malignant disease and tuberculosis, but he thought it was being done in many cases where it was not justifiable. In the case mentioned the pyonephrosis was due to nephroliths, probably its most frequent cause. In cases of stone in the kidney the best results wete obtained by nephrotomy, removal of the stone and drainage of the pus sac. This was best done through the loin by the Z-shaped incision of Israel and extra-peritoneally. The kidney can be drawn through the incision for palpation and exploration. About two weeks ago he had drawn the kidney through an incision in this way and, with an assistant compressing the renal artery with his fingers, he had cut through the organ from the convex surface to the pelvis, leaving only an inch at either end uncut. The ureter and kidney pelvis were explored. The kidney was then closed by formalized catgut in three tiers of continuous sutures and the wound drained. The patient was thus far convalescing well.

Dr. Jas. Kerr said: As to the route to

be chosen in nephrectomy the great consensus of opinion was in favor of the lumbar route, especially if there was pus in the kidney, as this method avoided the danger of infecting the peritoneum incidental to the abdominal operation. Richardson of Boston, was an advocate of the abdominal operation, but his method had been much criticized, and could not safely be taken as the most approved procedure. In cases of calculous pyelitis it was necessary that a fistula should be left, and for this the lumbar operation was necessary. He had operated within the last six menths on a case of pyelitis which had extended over a number of years. He readily made a diagnosis of pyonephrosis, but the woman's condition did not justify nephrectomy, so he performed a nephrotomy, liberated a large amount of pus, and the patient made a good recovery, gaining twenty pounds in weight, though she still had some enlargement of the kidney. As he had stated once before, there was no organ in the body which demanded an exercise of such conservatism as the kidney. He had presented a case on which he had operated, removing a part of the kidney and sewing up the edges. While Dr. Johnson's patient obviously could not stand a nephrectomy she might have recovered from a lumbar nephrotomy, which undoubtedly was the proper operation.

Dr. I. S. Stone said: He had seen this case some time ago, but it was decided to waive the operatien at that time. Her general history was practically as Dr· Johnson had given it. He now believed that if she had been operated upon six months before, the chances of saving her life would have been much better. He felt sure of the diagnosis of either malignant disease of the kidney or abscess. She had severe coughing and expectoration due to sepsis, but he was glad to learn that the physical examination had shown that she had no tuberculosis, which corresponded with his opinion. A case of cancer of the kidney, as large as the one just presented, was operated upon by himself some time ago in Fauquier County, and removed through a loin incision. The patient (a man) had been a hard drinker, and Dr. Stone did not want to operate while there was doubt as to the condition of the other kidney and the stomach. He therefore made an exploratory, median, abdominal incision and found that the kidney on the left side was large and probably doing all the work of both, and that the stomach and liver were apparently normal. He proceeded with the operation through the loin, and the patient made an uneventful recovery.

Dr. Jos. Taber Johnson, in closing the discussion, said: That the result might have been better if the operation had been done through the loin. The kidney formed a tumor as large as a child's head and as hard as a rock. There was not the slightest sign of fluctuation. If he had had any notion that the tumor contained fluid he would have operated through the loin, for she could possibly have been relieved by a lumbar operation, and if her life could have been saved by removing the stone and three pints of pus it would have been a great gain. In regard to the operation being always done through the loin, he did not agree that this was always desirable. One of the best operators in England had written a book in advocacy of the abdominal operation, and the consensus of opinion was not in favor of the loin operation, either on this side of the water or the other.

Intra-Uterine Soft Myoma.

Dr. I. S. Stone presented a specimen consisting of a uterus with an intra-uterine soft myoma. He had been called to see the patient by Dr. Parsons, and found the os uteri dilatable. He easily introduced the index finger and, at first, thought the patient pregnant, the sensation given the finger being exactly similar to that of the fetal head at four or five months with the membranes intact. It was found upon careful examination not to be a case of pregnancy, and operation was advised and done one week later. Owing to the nature of the growth, the narrow vagina (the patient being an unmarried woman and a virgin), it was decided to remove the growth by the abdominal route. The patient had lost a considerable amount of blood, and it was thought better to operate in this way than to run additional risk of hemorrhage and sepsis. The operation was without special incident; scarcely any blood was lost, and the patient had had no delay in her recovery. The tumor filled the pelvis and rose a little above the pubic arch. Examination of the specimen showed how easily one could mistake this for a fetal sac and contents. The visitors present at the operation all thought the case one of pregnancy, even with the specimen in their hands. It might be seen also how intimate were the relations of the tumor and uterus, for the fibres appeared to interlace and were not distinct, as would be the cases in a hard fibroma.

DISCUSSION.

Dr. Jos. Taber Johnson said: The criticism he would make in this case was that it would have been better to have removed the tumor through the vagina instead of through an abdominal incision and then have preserved the uterus and appendages. While in Paris last summer he had seen Peon and Segond taking out these tumors in a few minutes. Once, however, he had seen Jacobs operate, and he expected to see him complete the operation in six minutes, but it took an hour and a quarter to do so.

Dr. W. P. Carr said: That Dr. Stone had mentioned the possibility of removing this tumor through the vagina, but had decided not to do so because it was a soft myoma. In this he thought Dr. Stone had done quite right, because a soft myoma was of the same nature as a sarcoma, and it was not possible to distinguish between them either clinically or microscopically.

Dr. J. Wesley Bovee said: If it were true that these soft tumors were in the same class as sarcomata, and that fibroids were of a malignant nature, as Dr. Carr had just said, then the pathology and treatment of these tumors would be revolutionized. He did not believe he could accept such a statement. If it were true, then we had no right to wait for the menopause to see what effect it would have in some cases where the growth was small and not troublesome. We had all seen fibroids disappear at this time of life and during pregnancy. He thought the introduction of a sound in the case of Dr. Stone would have cleared up the diagnosis and demonstrated it to be an intra-uterine growth, removable through the vagina, and that this young woman could have been allowed to retain her procreative organs, as well as to escape the serious operation of hysterectomy. But if this tumor was of the nature that Dr. Carr thought, then it, as well as all those tumors, could not be removed too quickly.

Dr. W. W. Johnston said: When specimens like this of Dr. Stone's were presented to the Society it was evident that gynecologists were not proceeding in line with the advances in general surgery. Efforts were being made by surgeons to retain all essential organs, but here was a soft organ containing a soft tumor, that might have been removed piecemeal. Large tumors of the brain had been removed and the patients had recovered. Dr. Kerr had just said that efforts were being made to retain the kidney or a part of the kidney instead of removing it, but the uterus was just as essential to life and happiness as a kidney, and should not be removed except for a necessary reason. This specimen and these criticisms from gynecologists make us wonder why the operation was done; if the tumor was not malignant the uterus should not have been removed.

Dr. I. S. Stone, in closing the discussion, said: He could not find any line of demarcation between the tumor and the wall of the uterus. The patient had insisted that the operation be done to avoid all danger of sepsis, which was the *bete noire* of everyone about to undergo an operation; he did not himself think it was absolutely necessary to do a radical operation in this case. He did not agree with Dr. Carr as to the malignancy of soft myomata.

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CHAS. H. STOWELL, M. D. EDITOR.

THE EDITOR'S TABLE.

Municipal Control of Consumption.

The recent action of the Health Board of New York city in declaring that all cases of consumption shall be reported to its sanitary bureau will certainly call forth considerable criticism. The physician who has most of his experience in the study of his library or the one who is more successful in his theories than in his practice may see strong reasons why this requirement has not long ago been put into practice. The arguments are strongly on the side of so doing, to be sure, for we are told that in the city of Brooklyn alone the annual mortality from phthisis is fourteen per cent of the total number of deaths. It is practically an incurable disease and one that exists wherever civilization is found. We have allowed it to flourish all these years without taking vigorous means to check it. We have come to believe that it is an affection with which we must live and if we contract it, then it is one which must be endured until its fatal termination. Advocates of municipal control argue that tuberculosis and leprosy are twin sisters; basing their statements on the writings of recent investigators who declare that the two diseases are more nearly related than any other two, or that they are indeed identical, only that they manifest themselves differently. These people argue that we put the most stringent measures at work in the case of leprosy, then why not in the case of its twin sister? They claim that the consumptive should not be allowed to live, eat or sleep in the same room with healthy persons. He should not be allowed to go about the streets unless all expectorated matter be deposited in a proper receptacle rather than on the streets, or in cars and carriages.

The objections to this control are so strong that we do not believe the medical profession will endorse it for a long time to come. No one denies that the spitting nuisance should be abolished, but there are other ways of abolishing it than by placing the consumptive under the control of a health officer or a health board. No health officer can successfully carry out a reform in sanitary matters unless he is supposed by the best opinion of the local medical profession. It follows that when any strong action is taken, or when an officer seems to have too much power, or when there is anything like an effort made to deprive one of his freedom, then a reaction sets in and soon the condition of things is worse than at first. There are a few persons in our large cities who are naturally so vicious that probably no amount of education would keep them from spreading any kind of a communicable disease; in fact, it might not be too much to say that they would rather glory in their power to do something of this kind. But to offset this it must be accepted that the great majority of people neither have any desire to kill themselves nor to impose upon their relatives, friends and fellow citizens a terrible disease. Therefore, it appears to us that the time is not yet ripe for this bold step. The day is at hand, however, when more active measures should be taken to educate the people concerning the true nature of consumption, its communicable character and its prevention. This is a gigantic work in itself and when it has been successfully accomplished or when it is set actively into operation, then we believe will the number of cases begin to rapidly diminish.

Consumption not Incurable.

From reading the above one might conclude we thought consumption practically an incurable disease. In one sense it must be so regarded and in another not. When a patient comes to us with will-marked evidences of phthisis, including the tubercle bacilli in the sputa, we advise a course of treatment, possibly including a change of climate, etc., and give words of cheer and hope. How frequently indeed does the word come back, sooner or later, if the patient lives, that the disease is now wholly under control; and how generally do we note that if these patients who may think themselves practically cured, return to their old home the disease breaks out with great fury and is rapidly fatal. Hence, we may say that the disease is incurable. On the other hand, we have the testimony of those who have made large numbers of autopsies that they often find evidences of old lesions of the lungs, perfectly healed.

We are obliged to conclude that a first attack of consumption is not necessarily fatal. A patient may have pulmonary phthisis, and recover from it, for the time being at least, and this too in many cases without consulting a physician for any serious affection. The great danger from consumption and the one which has given it the name of an incurable disease is because of the frequency of its redevelopment. Reinfection is so frequent that if we do the best by our patients we must do everything to thoroughly disinfect the patient and his surroundings and destroy every particle of the sputa. Here then is the secret why the chances of cure are so much greater if the patient comes under our care at the very beginning of the attack.

Prenatal Destruction.

It is not pleasant to see so much in our exchanges about the terrible wickedness of those women who seek medical aid in order to prevent them from becoming mothers. From reading these highly exciting interviews one would think that the whole of womankind had suddenly become possessed of the idea to commit murder. One editor says that the stupendous increase of prenatal destruction is all the more shocking "because its perpetrators are found so largely among the reputable members of the profession". To think of a "reputable" physician performing a deed of this kind is quite past our comprehension. It is also more than we can understand how these highly educated, wealthy, respectable and altogether moral women of whom we read can seek such advice from these very reputable men. But who believes these stories that our exchanges contribute in such a vivid manner? Who believes that after the doctor has refused to grant the woman's request he tells her that if she will allow her child to be born as nature intended, he will then knock it on the head if she desires; and who believes that, with wide open mouth, blanched face, bated breath, speechless and trembling, she rushes from the room? It is nonsense, nonsense. The instances of reputable physicians being interviewed by these prospective murderers are so very few that when one occurs it stands out as a most unusual and startling experience in his whole professional career. We are not all going to destruction. There is a great deal of good in the world yet.

X Rays in Blindness.

We read a great deal in the secular press about the use of the X rays for the relief of blindness. Much of this has seemed so impossible that one is inclined to disregard everything written on the subject. Recently, however, some experiments have been made which show that in certain forms of blindness the X rays will probably enable a person to see. Take a case where the nervous apparatus of the eye is in a healthy condition, but no light can reach the retina because of opacities of the refractive media. Here it appears that the X rays can penetrate the opaque tissues and imprint upon the retina an image sufficiently clear to enable the person to have something like normal vision. This does not mean a restoration of permanent vision, but rather a temporary admission into the eye of certain rays of light which may be sufficient to lead to the identification of papers, individuals, etc. When there appears to be nothing too wonderful for belief in the realm of electrical science, and when we do not know what morning we may awaken to find some marvellous discovery at hand almost too startling to believe, how can we blame the laity for having confidence in the great curative properties of some proprietary remedy as set forth in glowing language through the press? They reply to us that these are marvelous days in medicine as well as in electricity, and why should there not be some one remedy useful for all diseases?

Call Him "Jim".

You can't kill him quicker. His name was James. But all through his medical course the boys called him "Jim". Settling in a large city he was surrounded by a number of his classmates who still continued their boyish custom. To be sure, they now called him Dr. Jim, but it is "Jim", still. Although very skillful and wonderfully helpful in cases of consultation, yet when the attending physician asks for him the head of the house says, "Is he not the one they call Dr. Jim" "Dr. Jim" makes you think of soda-water, soap-bubbles and thistle-down. There is nothing about Dr. James to make you think of these things; it is all in the Jim. When around the festive board or when walking home from the weekly meeting of the society there can be no objections to renewing old acquaintances in this manner; but if you want to kill a friend in any community continue such school-boy phrases.

Hard Times.

It is rather a serious matter to joke about hard times these days, when there is so much genuine suffering, but the incident we relate occurred many years ago in this city, even in its prosperous days. A well-to-do, but penurious man was advised by his physician to purchase a porous plaster for the pain in his back. For this he was obliged to pay the sum of twenty cents. In three days the pain was greatly relieved and meeting an acquaintance who was complaining of soreness in his back, our penurious friend said that he was then wearing a porous plaster for which he had paid twenty cents, but as he had no further use for it he would sell it for fifteen!

Death from Hypnotism.

We have previously expressed our opinion on the wisdom of physicians having anything to do with hypnotism. Our belief has been for years that this is a dangerous thing with which to experiment and something which is practically without value. We still hold that the person upon whom the experiments are performed is invariably injured if said experiments are long continued, while there is always more or less danger of serious results if the operator be unskilled. The papers now report the death of a boy at Jamestown, N. Y., who had been experimented upon by several amateur hypnotists. No less an authority than Dr. Clark Bell, President of the Medico-Legal Society of New York, expressed the opinion that hpynotic experiments would result in great physical injury if not properly performed. In this case the Coroner's jury brought in the verdict that the death of the boy was due to hypnotic practices.

What Makes a Man?

A contributor to one of our valued exchanges says, "Elegance of language, whether verbal or written, makes the man, professionally or otherwise". We have often wondered how long it would take to sweep the whole human race from the face of the globe provided they were treated after the fashion recommended by some writers in medical journals. We are now ready to wonder again how many of the inmates of our jails and prisons would be classed as gentlemen, provided the test of "elegance of language" were made. If elegance of language makes the professional man, then is it true that some of the most successful men we have ever known cannot be classed with those who strive to make the world better.

A Specialist.

One of our State Medical Societies was recently obliged to pass judgment upon an announcement issued by one of its members. Said announcement was to the effect that the writer was a specialist, paying particular attention to such diseases as, "Troublesome indigestion, dyspepsia, heart, lung, liver, kidney, skin and nervous diseases, rheumatism, tumors, cancers, diseases of women, etc." After this modest claim the writer says that although he pays particular attention to the above diseases yet he can be consulted on any disease at any time.

We know this will provoke a home smile for a number of our friends have time and again called our attention to the condition of affairs in our own city which is not greatly overdrawn by the above.

Our Over Crowded Profession.

The journal of the *Medical Sciences* comes to the conclusion, after a careful analysis of the situation, that in the case of the 4,000 medical graduates in this country each year, "the supply is not equal to the demand". We do not know how it is in other cities but in this city it is about as difficult to escape injury from the immense number of rapidly moving physicians' carriages as it is to get out of the way of the flying two-wheeled vehicles.

Medical Logic.

One of our exchanges is inclined to believe that the work of Pasteur is a failure because only one-half as many cases have been treated for hydrophobia at the Pasteur Institute as were being treated a year ago. On the other hand it would be just as logical to declare that the work of Pasteur has resulted in greatly diminishing hydrophobia, until now not one half the number of cases occur. We have considerable sympathy for the New Woman and we can believe a great many things which the Doctor of New Ideas advances; but we cannot possibly understand how any one can deny the existence of the disease called hydrophobia any more than they can deny the existence of diphtheria or phthisis.

The Climax. A recent writer in the *Medical Summary* says that two conditions are necessary if the functions of the nervous system be normally performed. It will be very surprising news to learn that these conditions are; first, integrity of the nervous system, and second, integrity of the circulating system. In other words you cannot have the functions of the nervous system normally performed if the spinal cord be severed or if there should be a large abscess in the brain; neither will things work right if there should be a serious wound of the heart or if there should be an aneurism of the aorta. After this scientific information the writer concludes that tongaline is one of the best remedies for neuralgia! He does not inform us whether this remedy will restore the integrity of the nervous and circulating systems or not, but we presume from the way he puts it that such is his belief!

What fun the doctors will have 100 years from now reading over some of the contributions to the medical literature of our time.

A writer in an exchange says that diphtheria made its first appearance in New England about 1659.

The *Brooklyn Medical Journal* for December contains an article on the Rontgen rays which is illustrated with fifteen half-tones.

The Loomis Sanitarium for consumptives is now open. It is situated at Liberty, N. Y. At present there are twenty-seven patients in the institution.

Tuberculosis is said to be very common among dogs, cats and parrots.

A German exchange relates the case of three Cæsarean sections upon the same woman. A living mother, with three living children, testifies to the success of the operation.

We understand that New York city is to follow the example of Boston, and will soon have regular medical inspection of its schools for the repression of infectious diseases.

A recent English authority says he hopes that operations for the removal of the ovaries and tubes are not so frequent as they once were. Although these operations as such are immediately successful, yet there are often most serious after results.—*Practical Medicine.*

An exchange says that after giving antitoxin the best thing to do is—nothing. And right here is where we believe said exchange makes a great mistake.

Winckel says that ten per cent of all cases of uterine fibroids die, "sooner or later". Does not this show a remarkable amount of technical knowledge? Is it far from the truth to state that 100 per cent of these cases die "sooner or later"?

THE MEDICAL AND SURGICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

At the meeting of this Society for February 4, 1897, Dr. L. Eliot read a paper on The Restoration of the Sphincter Ani. In opening his paper Dr. Eliot spoke of the neglect of study, by the general practitioner of diseases of the rectum and anus. He thought great injustice was done patients by not advising them to seek proper advice. He described the anatomy of the sphincters, enumerating the external, middle and internal. He contended that diseases of this class were as important and as capable of causing loss of health and happiness as those of other organs. He gave the histories of four cases in which he had restored the sphincter by operation. The operation was simple, consisting in freshening the edges of the divided sphincter and drawing them well together with sutures.

In discussing the paper Dr. Stone said he had never operated for restoration after fistula in ano. He believed there were many neglected cases. There should be no trouble in restoring the sphincter. He spoke of restoration of complete laceration of the perineum.

Dr. Lewis desired to know how the essayist obtained primary union in these cases, as he had failed in several instances.

Dr. Carr was surprised to learn this trouble was so common. He thought the majority of cases infected from without, this prevented primary union. It would be an advantage to use silver wire for suture.

Dr. Bovee believed there were many old cases incurable, especially those of a tubercular nature. In order to obtain union by first intention it is necessary to cleanse the rectum and have the wound aseptic and closed with buried sutures. In many cases the ends of the muscle are not picked up.

Dr. Bishop thought in tubercular cases benefit would be obtained from the ozone bath with static current.

Dr. Wm. B. French read a paper on, A case of Persistent Hiccough following Pneumonia. Recovery. The patient was seventy-five years of age, had suffered from pneumonia and during his early convalescence hiccough occurred with practically no intermission. The report was accompanied by a chart showing temperature and hiccoughs.

The paper was discussed by Drs. Chamberlin, Kober, Atkinson and Sothoron.

THERAPEUTIC NOTES.

The Treatment of Leucorrhea. A recent number of the *Therapeutic Gazette* said that Tyree's antiseptic powder appears to exercise a specific action against those peculiar pathogenic germs which infest the genito-urinary tract; hence it is especially indicated in cases of leucorrhœa.

Treatment of Carbuncles. One physician says he can now cure a carbuncle as quickly as he can a simple wound by the use of the new Protonuclein special. The literature on this subject is very interesting and can be procused by addressing Reed and Carnrick, New York.

"Those Flat Pills." One of the patients of Dr. S. B. Mindem of New York, asked him for more of "those flat pills" as they worked like magic. It was a case of neuralgic dysmenorrhœa and the flat pills were five grain tablets of Ammonol, one tablet being prescribed every three hours.

Feeding in Pneumonia. A physician writes to the Imperial Granum Co. of New Haven, Conn., that when he had an attack of pneumonia he had great difficulty in digesting his food. After giving a number of foods a trial he reports that none were so palatable and easily digested as the Imperial Granum.

To Prevent Substitution. A note from Mr. Fellows says that he trusts the profession will be on the guard against misleading advertisements and all fictitious compounds which are put out to deceive physicians and their patients and which are said to be substitutes for the well-known Fellow's Hypophosphites.

SOME IDEAS ON ALTERATIVES. Dr. H. G. Reemsnyder of Ephrata, Pa., reports a number of cases to show that Iodia is an ideal alterative. It also has a more important action, in that it is a cure in syphilis.

THE NEW DIGESTANT. Prof. Chittenden of Yale University, has just completed an analysis of the new digestant, Caroid. He shows that it not only has great power to digest the proteids, but its power to digest the starches is also equally strong.

THE WINE OF ASH. Dr. M. F. Stults of Wyota, Iowa, says that he has used Wine of American Ash in a number of cases with great benefit. He reports one case in particular where his patient had uterine trouble and where this Wine did more good than all other treatment she had received for many months previous.

CLEANLINESS IN CATARRH. An article in one of our exchanges gives a formula for catarrh which consists of two ounces each of the bicarbonate and the biborate of soda, eight ounces of listerine, and one and a half pints of glycerine. One ounce of this mixture added to a pint of water gives a bland and pleasant alkaline solution.

ACUTE AMD SUB-ACUTE RHEUMATISM. Dr. I. R. Pierce of Newburg, says that Salophen is entirely free from any depressing action upon the heart, does not disturb the stomach, and is free from any effect on the nervous system. He says that Salophen is a remedy which is practically a specific for both these forms of rheumatism.

THE THERAPY OF PETROLEUM OIL. The Angier Chemical Co. of Boston, have on the market an Emulsion of Petroleum Oil with which is combined the well-known hypophosphites. They call especial attention to the use of their preparation in diseases of the respiratory tract, such as acute and chronic coughs, bronchitis and phthisis.

A NEW TONIC. We are familiar with a number of cases treated with Gray's Glycerine Tonic and with the most satisfactory results. Dr. Godding, of the Government Hospital for the Insane, has ten patients on this tonic and all are doing well. Although comparatively a new remedy yet it is certainly meeting with most flattering success.

TREATMENT OF ACUTE MANIA. Dr. S. L. Reed of Highland Park, Ky., reports his success with Bromidia in acute mania. The patient had been receiving enormous doses of morphine, when one half ounce of Bromidia was ordered given every half hour until she was quiet. In two hours the patient was asleep, and eventually made a good recovery.

ANÆMIA FROM OVER WORK. A reprint of an article by Dr. J. D. Albright of Akron, Pa., sets forth the use of Gude's Pepto-Mangan in chlorosis and especially in anæmia from over work. This preparation is easily assimilated and produces no gastric disturcances whatever. It improves the appetite and has an especial action on the aliminative functions.

TO CURE THE GRIPPE. A recent writer in *Medical Reprints* says that to control the pain in la grippe there is nothing better than Antikamnia, while combined with quinine we secure a tonic effect, or with codeine we have a remedy especially indicated when there is an irritable cough or any bronchial affection; and if there are rheumatic complications then we have the combination with salol.

ADHESIONS OF PLACENTA. In a bad case of adhesion of the placenta with dangerous hemorrhage, Dr. S. G. Matson of Viola, Iowa, administered Ergot and Sanmetto with success. Dr. Matson says he has been in practice over sixty years and has attended more than 3,000 cases of labor, and yet he has never seen a remedy act better than did Sanmetto during the attack and convalescence in this case.

INFANTS FOOD AND MOTHER'S MILK. Dr. W. M. Smith of Syracuse University, says we pay to much attention to theory and not enough to practice. When he can see his little patients prospering in every way under the use of Just's Food he is inclined to forget theoretical discussions and declare that this food is the best on the market. He is also pleased to note that the food itself stands the most rigid scientific analysis.

BOOK REVIEWS.

ANOMALIES AND CURIOSITIES. A collection of rare and extraordinary cases, and of the most striking instances of abnormality in all branches of medicine and surgery. By Geo. M. Gould, A. M., M. D., and Walter L. Pyle, A. M., M. D. 968 pages, 295 illustrations, 12 half-tone and colored plates. Philadelphia: W. B. Sannders, 1897. Prices: Cloth, $6.00 net: half morocco, $7.00 net. Sold only by subscription.

This is a most unique and interesting volume and so far as we are aware nothing in this line has heretofore been published. There is always an interest which almost amounts to fascination in studying those things which are outside of the usual line. Those things which are most strange and exceptional are all the more absorbing and interesting and we always conclude their study by saying that, "Facts are stranger than fiction". It would be impossible to give anything like an idea of what this book contains. As we open it for examination we notice the illustration of a baby thirteen months old which weighed seventy-five pounds; while an instance is related of a girl of four who weighed 256 pounds. There is also an illustration of a girl of thirteen who weighed 422 pounds. Ventriloquists are said to be "Interesting anomalies of the present day".

The authors have given their personal attention to this volume and we are told that we can rest in full confidence of the authenticity of the reports. To give something of an idea of the variety of subjects treated it is sufficient to state that there are forty pages, double column, of index. As this work is sold only by subscription so probably all our readers will have an opportunity of examining it.

THE DISEASES OF INFANCY AND CHILDHOOD. For the use of Students and Practitioners of Medicine. By L. Emmett Holt, A. M., M. D., Professor of the Diseases of Children in the New York Polyclinic. 204 illustrations, including 7 colored plates, 1,117 pages. Price $6.00 cloth, $7.00 half morocco. For sale by subscription only. D. Appleton & Co., 1897.

We have been anticipating the pleasure of reviewing this book for nearly a year. The author's well-known ability as a teacher and writer, coupled with the fact that he has a large practice among children, makes anything from his pen gladly welcomed. Dr. Holt says that the material for this volume has been gathered from eleven years hospital service among children. The possessor of this book will be especially delighted when he reads the section devoted to nutrition, its derangements, and the diseases resulting therefrom. The space devoted to this discussion is large, but not out of proportion to its importance. Great stress is laid upon diet and hygienic measures, for the author believes that in this, rather than in drugs, lies the secret of success.

AUTOSCOPY OF THE LARYNX AND THE TRACHEA. (Direct examination without mirror.) By Albert Kirstein, M. D., Berlin. Authorized translation by Max Thorner, A. M., M. D. Twelve illustrations. Extra cloth, 75 cents, net. The F. A. Dauis Co., Publishers, Philadelphia.

The object of this volume is to show that the human larynx and trachea are accessible to direct inspection, the means to this end being simply pressure on the tongue. Autoscopy is an important addition to laryngoscopy, especially for examining the posterior wall of the larynx and trachea, although the older methods of examining the rear passages must continue to be the standard method for the purpose of diagnosis. The volume is of interest to all, but especially to those who pay extra attention to diseases of the throat.

SWEEDISH MOVEMENTS OR MEDICAL GYMNASTICS. By Dr. T. J. Hartelius of Stockholm, Sweden. Translated by A. B. Olsen, M. D., and edited by Dr. J. H. Kellogg of Battle Creek, Mich. 95 illustrations, 170 pages. Price $1.50. Modern Medicine Publishing Co., Battle Creek, Mich.

Dr. Hartelius was for many years director of the Central Institute of Stockholm, long known as the headquarters for training in this branch of therapeutics. The growing importance of manual Swedish movements in various forms of chronic diseases has caused such a general interest in the subject that we believe this volume will be greatly appreciated and gladly welcomed. Dr. Kellogg again surprises his friends, who know only too well his immense capacity for work, in presenting here a full introduction and preface. The personal acquaintance which Dr. Kellegg had with the author especially fits him for this editorial work. Prescriptions, or day's orders, are given for all maladies to which this special system is adapted.

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TRANSACTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

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(Continued from the February number. Meeting of November 4, 1896.)

THE BASOPHILIE OF NEUSSER.

By I. H. METZEROTT, M. D.

Some five years ago, when I heard Prof. Neusser state to a group of English and American physicians in the Rudolph Spital in Vienna, that the diagnosis of disease would be revolutionized by the discovery made and about to be made in the examination of the blood, I doubted his prophetic statement although I did not question the enthusiasm or sincerity of this brilliant diagnostician.

Every one conversant with the literature of to-day knows that the blood discs are now designated as to their color by leucocytes and erythrocytes; as to size by microcytes, makrocytes and megallocytes; as to their believed origin by splenocytes, lymphocytes and eolocytes; as to their form, by round cells, poicylocytes; and as to their staining affinity by acidophiles, basophiles, neutrophiles, eosinophiles, etc. Also that we speak of nucleated red cells which eminent physiologists but a few years ago told us did not exist either in health or disease: likewise that the words pleochromia and oligochromia are now employed to designate the degree of color of the blood cells.

Some three years after his prediction Prof. Neusser was borne upon a special train from the Austrian Capital to Buccharest to examine the wife of Prince Ferdinand of Bulgaria who had just been delivered of a son and who was then believed by the court circles of Europe to be in the last throes of death. The princess presented a group of symptoms which apparently pointed beyond any possible doubt to puerperal fever. That diagnosis together with its attending unfavorable prognosis had been rendered by her physicians the leading obstetricians of Europe. The nightly exacerbations of the fever, the abrupt remission so characteristic of sepsis, the sweats, the chills, the headaches, the nausea and general malaise occurring after confinement were symptoms which in ninety-nine cases out of a hundred were sufficient in themselves to warrant the correctness of this diagnosis. An examination of the blood by Prof. Neusser revealed not the presence of the staphylococcus or streptococcus, which might have been expected to have been found circulating in the arterial channels, but the plasmodium malariæ which in some mysterious way had gained an entrance into the system and made itself manifest post partum.

When, upon another occasion, Prof. Neusser diagnosed from a microscopical examination of a stained specimen of blood a cancer of the stomach, subsequently substantiated by a post mortem, in an individual eighteen years of age in whom a palpable tumor was not present and in whom there were no other direct symptoms indicating a neoplasm of this organ except occasional vomiting, my skepticism ceased and I became firmly convinced that conditions arose in the blood that were either pathognomonic of certain diseases or valuable in a differential diagnosis. Believe me, ladies and gentlemen, that the diagnosis of an affection rarely spoken of in medical literature and never before diagnosed during life namely, "suppurative pancreatitis", and that diagnosis which thrilled all Europe on account of its profundity, "compression of the pneumogastric within the thorax by a coagulum of blood" and the diagnosis of a cancer of the œsophagus, when every symptom characteristic of an aneurism of the arch of the aorta, especially paralysis of the recurrent laryngeal made manifest by a paralysis of the left vocal chord, bruit, dullness, hypertrophy of the heart and insufficiency of the aortic valve were present, were not made by chance but were due to Prof. Neusser's thoroughness and his invariable examination of the blood as were also his 150 successive diagnoses of fatal affections conceded as correct by the great pathologists Kundrat, Weichselbaum, Kolisko and Paltauf. This last case cited of a cancer of the œsophagus, serves to illustrate how an examination of the blood will throw a very different aspect upon the interpretation of a group of symptoms. This particular patient was watched by myself for a period of nearly two months during which time I examined almost daily his larynx, felt his pulse, percussed and auscultated his chest, but failing to examine his blood, rendered a diagnosis erroneous but identical to that of at least a dozen of the ablest Viennese diagnosticians, Thus, for a second and a third time is the importance of an examination of the blood demonstrated. Let us take that group of glandular affections which simulate each other in so many respects, namely lymphosarcoma, tuberculosis of the glands, the two diseases as they occur in combination, leukæmia and pseudoleukæmia, and see what light an examination of the blood will throw upon their differential diagnosis. The same pathological changes of the organs may be present in these affections but how different the conditions met with in the blood.

You will naturally ask what has the foregoing to do with the basophilie of Neusser. My reply is merely this: It is a precursor of that which has led to its discovery also an argument for the necessity of an examination of the blood in doubtful cases when accuracy and the substantiation of a diagnosis is desired. It is likewise an evidence that wonderful strides have been made in this particular line of investigation and a verification of the statement of Neusser that there is more to be found in the blood than is generally supposed, and a proof also that many of those diagnoses, which could not be made with certainty before death, are now rendered with a positive assurance of correctness during life. Question this latter claim and I will remind you that there is no way of diagnosing a pernicious anæmia except through an examination of the blood. I will call your attention also to a mounted specimen of blood now being exhibited labeled "Myelogenic-leucæmia" an affection the positive diagnosis of which can be made during life in no other way than by staining the blood. The patient from whom that blood was taken was an inmate of the greatest hospitals of Germany, Russia and Austria, a different diagnosis was rendered in his case at every one of these institutions for the reason that an examination of the blood was not regarded as essential in the rendition of the same. Neusser did not omit this step and as a result was rewarded with a diagnosis substantiated one week later at the post mortem.

Research in a particular line of investigation frequently reveals phenomena not looked for, thus in experimenting in his laboratory with staining agents upon the blood cells Prof. Neusser noticed that, when he employed Erlich's mixture, to which a certain proportion of Methylgreen had been added, there were certain patients in whom spot-like pigmentations made their appearance in the neighborhood of the nucleus of the leucocytes. These granula were at first attributed to precipitation of the ingredients of the staining solution but observing that these areas existed only in certain cells and particular individuals he continued his investigation and found that the pigmentation occurred mostly in those patients who were subject to headache, migraine, digestive disturbances, in rheumatics and those who complained of rheumatoid pains, in a large number of those in whom arterio-sclerosis was present, in individuals afflicted with nephritis, asthma, chronic cutaneous affections, neuralgias, neurasthenias, dizziness, diabetes and especially those in whom the proportion of uric acid in the urine was noticeably high. In calculosis of almost every form as well as in gout, the diagnosis of which could be made from the presence of tophi in the lobules of the ear, about the small joints, and the other well known symptoms, these granula were constant. The basic stain of the mixture having been ascertained as being the particular one which caused the pigmentation, the professor designated this property of the blood cells as basophilie and later established beyond any possible doubt that basophilie was a habit of the individual previously termed by the profession the uric acid diathesis. The importance of this discovery will be seen, for it enables us to diagnose with almost absolute certainty the cause of certain symptoms and affections which hitherto have always remained obscure. Not alone that, but it also affords us an opportunity to institute a rational therapy.

The antagonism between gout and tuberculosis is well known but the doctrine that a gouty individual never acquires the latter affection is not a fact, as has been proven on more than one occasion. The observation of Neusser, however, that if a gouty patient acquires tuberculosis he acquires a chronic fibroid form is absolutely correct, wherefore the value of this discovery at once becomes apparent, for it is now possible, after the tubercle bacillus has been demonstrated in the sputa to diagnose from an examination of the blood the particular form of phthisis from which the individual is suffering.

Up to the time of the knowledge of this fact, it was in the power of no physician to fortell with accuracy the course that an incipient phthisis would pursue. Much less the symptoms which would be encountered. To be able to make a prognosis during the early stages of phthisis is indeed a wonderful achievement. To tell a patient that he has an ulcerative phthisis is to inform him of a very grave affection, which in the greater number of cases regardless of treatment is wont to terminate fatally, but to impart to him the positive data which the presence of these granulas in the blood cells furnish, is to assure him that his form of tuberculosis is that chronic variety which frequently yields spontaneously to treatment under the most unfavorable conditions or pursues a course extending over decades of years. Render this diagnosis of chronic fibroid tuberculosis in a gouty patient, the future history of that particular case is as clear as though it were written. Tell me that a gouty individual has fibroid phthisis and I will tell you every symptom before hand that that patient has had and will have, and further, I will remind you that those profuse hemorrhages so characteristic of this form ot tuberculosis are not a danger in themselves and that such patients may have hemorrhage after hemorrhage and notwithstanding attain an old age, therein differing greatly from the hæmoptysis of an ulcerative phthisis. I will advise you also to send those patients to the mountainous regions having a higher altitude, ten chances to one that they will either get well or so greatly improve that they are capable of moderate work until they again become run down.

The establishment of the presence of the basophilie of Neusser in consumption is then of the greatest significance, but this is not the only disease where the knowledge of its existence is of value. Asthma and its hybrid hay-fever and a gouty diathesis frequently go hand in hand. Ascertain the fact that an asthmatic, or an individual afflicted with hay fever has a gouty habit, which can now be done by simply examining the blood, the treatment indicated is at once given. Such patients will do well upon an absolute vegetable diet during the time of the paroxysm. Alkalies will markedly shorten and palliate their attack, indeed the author is of the opinion that these patients can be entirely cured by the employment of this treatment just mentioned. Evidences of the truth of this statement have been obtained during the treatment of these affections in his own office, the hospitals in Europe and in the recent American and English literature.

There can be no question, that the lithæmic diathesis is the cause of many an asthmatic paroxysm, although I am frank to confess that pulmonary asthma occurs in a great many patients, in whom there is no habit of this kind, nevertheless, there is a theory which has been established almost as a palpable fact, that at least some of these asthmatic paroxysms are due to the formation of Leyden's crystals, supposed to result from the crystallization of those cells which are known by the name of eosinophiles, which in their crystallized state are believed to irritate the nerve filaments of the bronchioles. If this be so and eosinophilie is also present when there is basophilie, as one case cited by Neusser will tend to prove, then we shall say, as far as one form of the particular affection is concerned, that the disease is to be found in the blood and that the word lithæmic has been well chosen. Headache, of any form and neuralgia as well are symptoms which will baffle the shrewdest, for a hundred causes may give rise to the same, but those due to a gouty habit can now be positively ascertained if the trouble be taken to examine the blood.

It is a well known fact that certain cutaneous affections are either cured or favorably influenced at such springs as Carlsbad and Vichy, while others are not. The reason for this, I believe I am able to state to-night with more or less positive accuracy. It is because there is no place in the world equal to these springs for the treatment of gout. Those patients who have their cutaneous affections by reason of a basophilie are cured or relieved, while those who derive no benefit from drinking or bathing in these mineral wates do not have the gouty habit. In one of the first patients of Prof. Neusser in whom there was positive evidence of a uric acid diathesis and who was simultaneously afflicted with fibroid phthisis and a syphilitic affection, I noticed a syphilitic psoriasis of the palms and the soles. The thought occurred to me at that time why is it that this woman has a scaly syphilide? Why is her affection not of the succulent form? Having noticed a scaly eczema of the hands in two of my patients here in America of gouty habit, which disappeared upon the administration of the artificial Carlsbad salts, I desire to impress my listeners with these phehomena, for a scaly syphilide in its appearance can certainly be compared to a squamous eczema, which it resembles in more than one respect, but particularly in its dry character. If I have been the first to call attention to this similiarity not only between these two affections but lupus as well, and if my theory is substantiated that these conditions occur because the individual has a fibroid habit and a fibroid habit, because he is of a gouty diathesis, then I am entitled to having made an original observation, which however, I reserve the right to modify at any time in the future when facts to the contrary are furnished.

Among the patients whom I treated who had acquired or inherited the gouty habit, I must mention an aged Hebrew living in the top story of one of the high apartment houses in the Ringstrasse in Vienna. During the absence of my chief, I was summoned in great haste one night to treat this individual, who was suffering from an epistaxis, that up to that time had proven uncontrollable and which came on while he was climbing the steep stairs leading to his room. This hemorrhage emanated from the usual place of bleeding, the anterior-inferior portion of the quadrangular cartilage. I examined heart and blood vessels of this patient and made the diagnosis arterio-sclerosis. The hemorrhage was readily controlled and I regarded it as a fortunate circumstance for the patient that the rupture of the vessel had taken place in the nose instead of the usual place, the brain. Subsequently the patient was transferred to the general hospital where he died. The post mortem revealed a cirrhosis of the liver and kidneys such as is caused by arterio-sclerosis. The hemorrhage was undoubtedly due to two factors: first, the brittle arteries; second, the impaired portal circulation. This case is interesting for the basophilie of Neusser was present, and was undoubtedly the cause of his hemorrhage. Of the three specimens of the basophilie of Neusser, which I exhibit to-night, one was prepared by Dr. Neudorfer. It is from the patient with the fibroid phthisis and syphilis of whom I have spoken, and to whom the Professor alludes in his monograph. The other two come from a family in whom the gouty diathesis could have been diagnosed without an examination of the blood, from the fact that about the small joints of the hands and feet of the mother were those calcareous deposits typical of this diathesis, but I must emphasize the fact had these tophi not been present that without an examination of the blood I would have been at sea as to the causative factors of the different affection, for which I treated the members of this family all of which were directly attributable to the habit.

The demonstration of the presence of those granules in these patients known to be gouty, pleases me not only for the reason that it has enabled me to exhibit to you some of the first microscopic slides of this kind prepared in America but also because I assured Dr. Gray before hand, that he would positively find these conditions in the blood.

I intended to close here and say no more, but Dr. Rupert Norton kindly informed me by letter, that a certain Dr. Futcher, a former assistant to Dr. Osler, had assailed the basophilie of Neusser, in an article appearing in the *Central Blatt fur Innere Medicin*, of September the 26th of this year. Upon the receipt of Dr. Norton's missive I repaired immediately to the Army Medical Museum and hastily read the article. About this foreign body of which Dr. Futcher speaks I know absolutely nothing. I have even forgotten its name. I do not believe that it was known when I worked with Neusser in the Rudolph Spital or the Algemeine Krankenhaus. As to its relation to basophilie, that is something about which in consequence I am not informed. But Dr. Futcher in his monograph admits, that he did find these granules, as I also did, in four patients known to be gouty. That is an admission and a substantiation of what Neusser claims and only strengthens my convictions regarding the relation of these granules to the uric acid diathesis. His having found the granules in individuals whom he regarded as being in perfect health proves nothing at all excepting that he did not want to reconcile himself to the thought that there can be such a thing as latent gout and that a patient could have a gouty habit and at the same time not have visible symptoms, which I am convinced is not only possible but is an every day occurence and is but another argument that this gouty habit is far from being a rarity and that we shall find it occasionally where we least expect it.

Those microphotographs and the endiograph and the specimens themselves in my possession and Neusser's one hundred patients are such indisputable evidence, that when Dr. Futcher convinces me that star-light is sun-light, that night is dawn, that life is death, I shall be ready to confess that Neusser has misinterpreted the significance of these granules.

DISCUSSION.

Dr. Miner of Ashville, N. C., said: Some six years ago he had the honor of studying under Prof. Neusser, and while he had no intention of belittling Neusser's reputation he maintained that the presence in the blood of the so-called Neusser granules was discovered by Ehrlich and not by Neusser. And, moreover, he did not think a record of 100 cases was sufficient on which to base a claim of the possibility of diagnosing the gouty diathesis by the presence of Neusser granules in the blood. Certainly anything which would enable us to diagnose obscure cases of gout, or to say whether certain cases of phthisis were going to take a certain form or not, would be heartily welcomed, but he did not think Dr. Metzerott or any other man was justified in saying that a case of fibroid phthisis was going to follow any fixed and specific course. But while he took issue with Dr. Metzerott on these points, the hypothesis was certainly an interesting one.

Dr. Metzerott said, in closing the discussion: That there were many kinds of fibroid phthisis, but that the form which he referred to was that which was found among gouty patients. Of course he could not pretend to predict the course which every case of fibroid phthisis would pursue. However, it had recently been decided by the medical societies of Paris and many other European cities that those cases of fibroid phthisis to which he referred, (namely those occurring in gouty patients), had many years of life before them.

APPENDICITIS AND TYPHLITIS.

By A. B. Storch, M. D.

The name of appendicitis was ignored in the early days of my professional career. A fixed pain in the right iliac fossa accompanied with abdominal colic, vomiting, constipation and peritonitis was diagnosed as a case of typhlitis, peri-typhlitis, or strangulation of the bowels. Typhlitis, with many lesions at that time and even at this period, included all inflammatory accidents of the right iliac region and was the term applied to inflammation of the cœcum. Ziegler, however, applied the term of typhlitis to inflammation of the appendix and peri-typhlitis to inflammation of the adjacent parts. Albers of Bonn, furnished the term stercoral typhlitis with its four varieties and for nearly sixty years it remained an accepted term with his admiring followers, although no one had ever found in the cadaver either simple or stercoral typhlitis. In cases where such a diagnosis had been made and the patient died an autopsy invariably revealed either perforation of the appendix vermiformis or peri-cœcal abscess or a peritonitis, but never simple and isolated inflammation of the cœcum. The accumulation of fœcal matter in the cœcum was one of the bases of the theory of typhlitis. Fœcal matter, however, accumulates ordinarily in the sigmoid flexure, but if the constipation continues, the fœcal engorgement ascends little by little and gains the entire colon, and the cœcum in its turn becomes obstructed. Munchmeyer, Behier and others claim that it is impossible to cause it. General practice bring us almost daily in contact with women who have been addicted for years to constipation, often passing three or four weeks without a fœcal movement who apparently remain in good health, having never been afflicted with inflammation of the cœcum from this cause. Neither does their sexual pecularity predispose them to attacks of appendicitis; statistics showing that this disease is four times more frequent in men than women.

Research of the last fifteen years seems to have definitely established the fact that the seat of disease is not primarily in the cœcum or in the surrounding cellular tissue, but in the appendix vermiformis. Dr. E. P. Hurd of Massachusetts, strikes the right chord in saying, "In the light of recent pathology, typhlitis and peri-typhlitis, independently of appendicitis, must henceforth be relegated to the land of myths and fables. Stercoral typhlitis is destined to disappear fron nosology and idiopathic peritonitis is a bugaboo which no one ever saw or ever will see. When appendicitis and its consequences are once understood, many mysteries connected with peritoneal inflammation, deep abdominal abscesses and other points of abdominal pathology will have become clear." Reginald Fitz of Boston, in 1888, took the radical but scientific position that the condition described under the name of typhlitis, pera-typhlitis and peri-typhlitis, of appendicular peritonitis, or peri-typhlitic abscess, were all nothing but phases or varieties of one and the same affection, inflammation of the appendix vermiformis or appendicitis, and this opinion is now-a-days unanimous among American authorities, and the fact has been demonstrated various times that whenever surgeons operate for relief of symptoms attributed to typhlitis or peri-typhlitis it is always the appendix which is found primarily affected and, according to McMurtry, there never, or almost never exists inflammation or perforation of the cœcum. One of the most striking arguments against the existence of stercoral typhlitis is the tangible and indisputable absence of symptoms and signs of typhlitis when cœcal lesions do exist.

Appendicitis presents one fact in its study, the presence of concretions or of foreign bodies. In 760 cases of appendicitis collected from Fitz, Matterstock, Krofft, Fenwick, Maurin, Roux and others, foreign bodies were found in the appendix and sometimes in the pus in peri-appendicular abscess in 450 cases.

In Roux's 200 cases, however, only two cases were discovered in which the appendix contained two fruit seeds. In Hunter McGuire's thirty-six cases no foreign body was found and in the two cases mentioned the foreign body such as cherry stone and beans, proved to be nothing more than hardened fœcal matter.

Some authorities take the advanced ground backed by laparatomies and autopsies that no foreign body could be admitted into the cavity of the appendix unless by some peculiar pathological change. The foreign bodies as supposed causes of appendicitis are of various kinds, such as pins, fish bones, fruit stones, beans, gall-stones, intestinal calculi and hard fœcal balls or scybala; the last being by far the most frequent cause of all. Scybala are little balls of fœcal matter of brownish color, soft at first and becoming hard and dry. Chemical analysis shows them to be the same as fœcal matter of the large intestines. They are supposed to form in the cœcum, and chronic colitis is the most ordinary cause of these fœcal concretions. According to Charles Talamon's theory the foreign body of whatever nature becomes engaged in the appendix by inordinate contraction of the cœcum, causing obliteration of the orifice, compression of the walls of the appendix and obstruction of the circulation in the vessels of its walls. Then follows necessarily distention from the glandular secretion of the appendicular canal and diminished vitality of the organ by compression; inflammation results followed by ulceration, perforation and abscess. There is, however, another important factor in the case, the microbes which inoffensive in the normal state and impotent against healthy elements, may multiply and become malignant in the stagnant liquid of the closed appendix, inflaming, ulcerating and destroying the walls of the appendix at one or more points and by perforating them make irruption into the peritoneum causing peritonitis and abscess.

A diseased appendix may in itself become the foreign body and as such become the exciting cause in recurrent or chronic appendicitis.

In regard to cases in which no foreign body is found in the cavity of the appendix it may very possibly have been overlooked, or being only partially engaged might have fallen back into the cœcum, or the scybalum becoming softened into a semi-fluid mass might have been discharged through the perforation into the peritoneum. This is the theory of Dr. Charles Talamon and others.

The scybala or roundish concretions which are found in the cavity of the appendix, however, cannot be regarded as direct causes of irritation or perforation; they are simply agents of obstruction and compression. The active role in appendicitis is taken by the microbes. Emmerich's bacillus, the bacterium coli commune and other pathogenic, pus producing microbes are found in the digestive tract from mouth to anus and being inoffensive in conditions of health may become virulent in all morbid conditions of the bowels, such as constipation, obstruction, strangulation, inflammation and diarrhœa. According to many writers and bacteriologists the bacterium coli can produce not only inflammatory lesions, but suppuration also, and to-day it is claimed that most of the pathogenic microbes are capable of producing pus.

Age is a predisposing cause of appendicitis. The disease is rare in early infancy and old age. According to statistics the greatest number of cases occur between the ages ot two and forty.

In regard to sex, the elaborate statistics of Reginald Fitz show that out of 246 cases of appendicitis 197 were males or eighty pcr cent, and fifty females or twenty per cent. We can therefore, conclude that appendicitis is more frequent in the male than in the female in the proportion of four to one.

In regard to treatment I will say that no medicine is known, which will act as a specific in appendicitis. Remedies such as dorsal rest in bed, proper diet, cathartics, counter irritation by iodine or blisters, ice, fomentations or poultics and intestinal antiseptics might prove efficient in sub-acute and chronic relapsing appendicitis and the evil day might be postponed for the time being, but it will surely return and death claim the patient sooner or later.

Surgical interference, at as early a day as possible, is the only safe remedy in appendicitis. Thornly Stokes, President of the Royal College of Surgeons in Ireland, says in the July number, 1895, of the *British Medical Journal*, "As far as I am able to state my opinion on the matter it is that if an abscess has formed or perforation has taken place, laparotomy should at once be resorted to, but that short of these misfortunes, operations should be delayed until the last possible moment." This is dangerous teaching and equivalent to saying that an operation should not be resorted to when there is a chance of saving the patient's life, but when death is inevitable, with or without an operation, then operate. I will say that such teaching will insure a large death-rate. Whether the form of an attack of appendicitis is of the hyper-acute perforative kind or simple parietal appendicitis or acute appendicitis with localized peritonitis, or subacute or chronic relapsing appendicitis, as soon as you have diagnosed the case correctly, call in an experienced surgeon and operate. The sooner this is done the better the result, a life will be saved that by waiting would surely be sacrificed. The perfect technique of a laparotomy, the thorough aseptic precautions and the skill of the experienced surgeon of the present day are the means by which we save a class of patients which were formerly necessarily buried.

My professional experience in Washington covers three cases of appendicitis. The first two cases came into my hands after each case had been treated for four days by homeopathic physicians. No consent was given for surgical interference and both died in spite of my best efforts to save them. The second case died from septicæmia and the rupture of an abscess in straining over a stool, and after showing decided indications of improvement. Drs. W. W. Johnston and VanRensselaer consulted in this case.

June 17, 1896, I was called to my third case, E. H., a boy ten years of age, with a history of constipation and of falling down stairs a few days previous to the attack. He had been attacked on the day previous with vomiting and a severe pain in the right iliac fossa, which had continued, knees were drawn up, bowels constipated, urine scanty, no peritonitis or tympanitis, pulse 115, temperature 103°. I diagnosed the case appendicitis and told the parents if there was no change by next day after the action of a thorough cathartic with fomentations, an operation would become necessary to save the boy's life. June 18, a. m., found bowels had moved freely, but the pain remained the same in spite of poultices and anodynes, vomiting had lessened, pulse and temperature about the same. I asked for a consultation and that Dr. James Kerr be sent for. The doctor met me in consultation at three p. m. of the same day, and at six p. m, performed the laparotomy successfully and under the strictest aseptic precautions, assisted by Drs. French and Parker. The appendix was removed and was found gangrenous at its cœcal attachment. The cavity was filled with pus and its body congested and thickened; no foreign body was discovered. The wound closed in twenty-three days the boy making a good recovery. The after treatment in this case consisted in extreme cleanliness, aseptic, daily dressings and thorough drainage, with light food, cathartics and warm water enemas to remove flatulence and reestablish peristalsis. In conclusion I will present the following points:

1. That the term typhlitis as applied to diseases in the region of the iliac fossa is erroneous, misleading and dangerous.

2. An active cathartic assisted by enemas will most always dispel all doubts as to whether we have to deal with a case of strangulation of the bowels or appendicitis.

3. That foreign bodies are not always the sole cause of appendicitis.

4. The pathogenic intestinal microbes are pus producers and sole agents of ulceration and perforation and as such play the active role in appendicitis.

5. That surgical interference at an early period is the only rational, safe procedure in appendicitis.

DISCUSSION.

Dr. Jas Kerr said: Of the number of cases of appendicitis he had seen in the last few years, it was always a serious question to decide whether an operation was demaded or not and when to operate, but his experience had shown him that not every case of appendicitis required an operation. In this case the symptoms came on very suddenly and tended to increase in severity. The temperature and pulse rate went up, and the symptoms indicated that there was danger of the infection spreading. He accordingly operated and removed the appendix and some pus, leaving the wound open for several days, and then closing it by secondary suture.

Dr. W. P. Carr said: That the statement that all cases of typhlitis and perityphlitis must come from inflammation of the appendix was not true, for they might arise by extension of the inflammation from other organs. He had seen at least one case where that was so. He operated on a case of typhlitis about three years ago. The woman had a history of recurring appendicitis. After one severe attack he was called to see her and decided to operate upon her, although when he made a physical examination he could discover nothing wrong. When the abdomen was opened the appendix was found to be perfectly healthy, but the anterior wall of the cœcum was inflamed and attached to the anterior abdominal wall by old tough adhesions. Complete recovery followed the separation of these adhesions. The appendix was not touched.

Dr. John VanRensselaer said: He thought there were few subjects in surgery more difficult to decide then when and how to operate for appendicitis. Some time ago he had read a paper advocating early operations in cases of appendicitis, and he was still of the opinion that it was best to operate. This case of Dr. Storch, which he had seen with Dr. Johnston, illustrated this. It was a mild case without much fever or pain, and his condition was not serious and an operation was not allowed. The young man, twenty years of age, did well, but after several days, against the advice of his physician, he got up and went to stool. He was immediately seized with a severe pain and died soon afterwards in a state of collapse.

Dr. W. W. Johnston said: The subject of appendicitis was one of such interest that he could hardly avoid saying something. The question was a growing one; opinions regarding operation were now divided into two opposite factions; one believed that all cases should be operated upon at the earliest moment, the other that we should wait until urgent symptoms arose. Since last year his own experience in appendicitis had been in support of the plan of delay: three striking cases the details of which he remembered, recovered without operation. The operations had been deferred from time to time, as the urgency of the symptoms did not demand immediate interference. That we should operate on all cases as soon as they were discovered was the opinion of McBurney and others, but Dr. Johnston did not think that we should subscribe to that opinion; we should wait until the case was manifestly going steadily from bad to worse. Richardson of Boston, gives two periods in which the operation can be safely performed. The first period was within two days after the onset of the disease; the second safe period was after five or six days had elapsed, when firm adhesions had formed around the abscess. During the intermediate period an operation would be dangerous; yet this was the very time when physicians usually first saw their cases, and was most frequently selected for operation. In his (Richardson's) opinion if an operation were absolutely necessary an early operation was best, and after that the third period should be selected. In the present stage of our knowledge of the disease it seemed to be better not to operate in the first period. If the symptoms were not progressively worse, septic fever did not develop, or if the tumor were diminishing in size, we were justified in waiting. The temperature was not always a safe guide in such cases; a case may grow worse rapidly with a lowering temperature.

Dr. W. P. Carr said: Dr. Johnston was certainly correct in his position. He believed that fully fifty to seventy per cent of cases would get well without an operation. He had seen three such cases recently and had refused to operate, and they all got well without an operation. If the attacks were recurrent the patient should be operated upon between the attacks. But if the attack begins with violent symptoms an operation should be done at once.

Dr. Storh, in closing the discussion, said: That an early laparotomy in appendicitis proved successfully in his third case, while complications at a later period of the disease such as perforation, peritonitis, abscess, septicæmia and exhaustion would have lessened the chances of recovery.

The non-surgical interference was thoroughly tested in his second case where under the treatment already stated the patient steadily improved and all dangerous symptoms had apparently subsided. Nevertheless, the patient upon getting up and going to stool where he mode a strong effort to move his bowels was suddenly seized with severe pains in his abdomen and shortly afterward died in a state of collapse. No doubt death being due to rupture of a large pus-sac. This case undoubtedly would have been saved by an early laparotomy.

MEETING OF NOVEMBER 11, 1896.

Dr. S. C. Busey, President, in the Chair.

LITHOLAPAXY.

Dr. Wm. Forwood, Lieut. Col. U. S. A., presented a specimen and exhibited the patient with the following history:

W. H., aged thirty-seven years, a cavalry soldier, in May, 1887, was hurt in the back being jammed forcibly against the feed trough by a fractious horse at stables. He passed bloody urine immediately after this accident and went under treatment in the hospital for two or three weeks. Returned to duty and experienced no further effects of the injury until about two years later in 1889 when he was suddenly seized with pain in the region of the left kidney accompanied by very urgent and frequent desire of micturition, which was followed by the discharge of small clots of blood from the bladder. The bladder was sounded at that time for stone, but none was found. This attack lasted two months, then the soldier returned to duty until the early part of 1890, when he suffered another similar attack with the same symptoms including hematuria. Other attacks occurred in 1893 and '94; and in February, 1896, after active physical exertion he was seized with pain in the left side of the back and frequent urination without blood, but with marked increase in quantity of urine. With this attack he went to the hospital and remained until May, 1896, when he was discharged from the army for cystitis and stricture of the urethra. Patients general health now failed rapidly with great weakness, loss of weight and a large flow of urine. There was constant irritation of the bladder and all the usual symptoms of vesical calculus. He was at length admitted to the Soldiers' Home and taken in the hospital, where on examination the following items were noted. Patient much emaciated, pale, anemic, weak, trembling and out of breath; urine pale, and of low specific gravity; quantity from 90 to 160 ounces in the twenty-four hours; no albumen or sugar. Many leucocytes and other evidence of cystitis; soft ulcerated stricture, 5¼ inches from meatus; small, very hard movable calculus in the bladder. After rest in bed and a course of preparatory treatment, to improve his general health, October 11, ether was administered, the urethra rapidly dilated and the stone was crushed and washed out at one sitting. The patient got up on the third day and has gained in weight and in general health since that time. The calculus was of the black calcium oxalate variety which is said to have its origin in the kidney and in this case, no doubt, formed around a small blood clot following the renal contusion in 1887.

In presenting this case I take the opportunity to call attention to the very favorable results obtained within the last few years from litholapaxy by several operators of experience who claim that it is a safer and better operation than either perineal or suprapubic lithotomy. The following statistics are from very recent reports:

Comparative mortality after different methods of operation.

Infancy to puberty.	Cases	Deaths	Mortality
Perineal lithotomy, -	602	19	3.1 per cent
Suprapubic lithotomy, -	637	84	13.1
Litholapaxy, -	284	5	1.7
Puberty to middle ages.			
Perineal lithotomy, -	226	22	9.7
Suprapubic lithotomy, -	159	18	11.3
Litholapaxy, -	485	22	4.5
Middle age to old age.			
Perineal lithotomy, -	69	13	19
Suprapubic lithotomy, -	91	17	18
Litholapaxy, -	581	40	7
Total for all ages.			
Perineal lithotomy, -	897	54	6
Suprapubic lithotomy, -	887	119	13.4
Litholapaxy, -	1,350	67	4.9

These figures show that even in children where heretofore lateral lithotomy has been regarded as quite satisfactory litholapaxy now gives still better results; but it is in the old that litholapaxy has shown its greatest superiority over other methods. This new evidence and new experience have come to light quite lately in the reports of prominent surgeons both in this country and abroad, among whom may be mentioned Keith and Buxton-Brown, Keegan and Freyer, Guyon, Chismore, White, Harrison and others.

Litholapaxy appears to be practicable in a large majority of all the cases of vesical calculus presented, not excepting children and gives a shorter convalescence and a higher percentage of recoveries than either the high or the low operation, at any age. The operation that gives the highest rate of mortality at all ages is suprapubic lithotomy and this is precisely the operation which for a while back has been most in vogue, but it should not now be practiced without first considering the claims of litholapaxy wherever the latter is applicable.

DISCUSSION.

Dr. J. Ford Thompson said: No surgeon would hesitate to employ litholapaxy for small stones, but in bad cases of stricture or chronic disease of the prostate litholapaxy was the most dangerous operation, and required a most skillful operator. He had performed suprapubic cystotomy on an old man for the purpose of operating on the prostate, but when he opened the prostate he could find no stone. Several days afterward, in passing an instrument through the incision it came in contact with a hard substance, which he then ascertained to be an encysted stone. In this case it would have been utterly impossible to perform litholapaxy, for the stone could not have been found. The difficulty in performing litholapaxy was in getting away every last piece of stone, and in order to accomplish this it was often necessary to keep the patient on the table an hour and a half or two hours. Taking all cases together, both bad and good, it was a question whether there would be this difference in the mortality of the different operations which Dr. Forwood claimed.

Dr. Wm. Forwood, in closing the discussion, said: That there certainly were contraindications to the use of litholapaxy. For instance, when the nucleus was a substance which could not be comminuted, such as a bullet or an iron arrow head, as he had once seen, then a crushing operation was not applicable. Likewise with dense fibrous stricture in the deep urethra or severe cystitis with vesical spasm and tenesmus. But these were exceptional conditions, and it was a great mistake to suppose that litholapaxy was confined to mild cases and small stones. Cases had been reported where stones weighing 800 grains and more had been crushed and washed out at one sitting. A a rule large stones had the advantage of being soft and hard stones had the advantage of being small. On the whole, operation by means of litholapaxy had a far wider application than any other. It was being employed within the last two or three years by the best operators, and they were not hesitating to use it in the difficult as well as in the mild cases.

TREATMENT OF RETRACTED MEMBRANA TYMPANI. NEW METHOD.

By Isidor Bermann, M. D.

Some time last year I had the pleasure of demostrating to you a new instrument designed for the purpose of taking hold of the handle of the malleus in order to mobilize the ossicula auris, a proceeding toward which all treatment for deafness and tinnitus tends principally.

This instrument I have found to do very good service, but in some cases, where the drum or portions of it are attached to the inner wall of the tympanic cavity, it was found not applicable without taking more risks than I wished to incur. For the purpose of meeting this difficulty, I devised the following methods:

The use of collodium applied to the drum in such a way as to produce its contraction had been recommended a number of years ago, but seems to have been given up again, probably because it was, as proved also in my hands, ineffective. In order to be able to give some more tractional power to it, I devised this little disk of paper, attached to a handle of some stiffness, like for example a toothpick, fastened with the help of collodium to the drum in such a way, that any pulling at it will be directly transmitted to the drum and the ossicula, thereby enabling us, when it is desirable to exert a stronger pull on these ossicles than can be produced either by aspiration with the Delslancher rarefactor or forcible inflation with the catheter. When we use a stiff handle we can also produce alterative traction and pushing force such as is produced by Leucæ's elastic probes.

DISCUSSION.

Dr. S. M. Burnett said: The instruments devised by Dr. Bermann were certainly very ingenious, there could be no question about that, but there was a question about their intrinsic value. There were a great many cases of anchylosis of the middle ear which were due to adhesions of the stapes to the round window, and these cases an apparatus could not affect. There were a few cases, without doubt, in which the malleus alone was involved, but these were due to adhesions which could be divided with a knife. Those cases of anchylosis which were the result of a change of the soft mucous tissue into dry cicatricial tissue nothing could remedy. The plan which he followed for the mobilization of the ossicles was the suction apparatus of Siegle, by which he could use as much force as was safe. Dr. Bermann's plan was certainly ingenious, but he would like to see the results of its use before endorsing it.

Dr. C. R. Dufour said: The instrument exhibited by Dr. Bermann might accomplish what he claimed for it, but there were better and more exact methods of treating a retracted membrana tympani. This condition might be caused by a closure of the Eustachian tube which caused a rarification of the air in the middle ear. When such was the case there was no better method than the Politzer air bag or the Eustachian catheter for equalizing the atmospheric pressure in the ear and thus correcting the retraction of the drum membrane. When the retraction wás due to contraction of the tensor tympani, and adhesions in and around the oval and round windows, and of the membrana tympani to the walls of the middle ear, then the otoscope of Siegle, which was a pneumatic masseur, would correct this condition by imparting decided movements to the drum membrane and the ossicles. This massage, by increasing the nutrition of the parts, tended to promote absorption of the exudates and of the adhesions, unless the latter had become too dense, in which case a tenotomy of the tensor tympani, the disarticulating of the includo-stapedial joint, the freeing of the stapes from the adhesions in and around the oval window, would, in a large majority of cases, correct the retraction and improve the hearing. One or all of the above named operations might be necessary, and statistics warranted him in saying that the results in most of the cases where they had been performed had been beneficial. He thought another objection to the instrument of Dr. Bermann was the method of its application; of fastenining it to the drum membrane by some adhesive material, and which, after the time employed in its application, yielded no better results than Siegle's otoscope and inflation as above described, if indeed they were as good.

Dr. Bermann said: He must have expressed himself very badly, for both Dr. Burnett and Dr. Dufour had been discussing dry catarrh, and he was not aware that he had spoken of dry catarrh at all, but of mobilization of the ossicles. The methods described by Dr. Dufour were well known to him, but the method which he had devised was intended to apply to those cases to which the other methods were not applicable. He considered that any operation at all for dry catarrh amounted to malpractice. Operations could not improve such cases and only made them worse.

Dr. S. M. Burnett said: Dr. Bermann was mistaken if he thought that outward traction on the malleus would move the other bones of the ear, for Helmholtz had shown that the peculiarity of the malleo-incudal joint allowed an inward movement of the malleus to affect the other bones, but its outward movement was independent. This was a wise provision to prevent a violent outward movement of the malleus from tearing the stapes from its insertion in the oval window. Procedures such as this one recommended for these conditions were of doubtful value, and he did not believe in changing a method which he had always found to be without danger at all for more dubious operations.

DIPHTHERITIC CONJUNCTIVITIS.

By W. K. Butler, M. D.

Diphtheritic conjunctivitis in my experience is sufficiently rare to warrant the presentation of a case recently under my care. Out of more than 4,000 eye cases of which records have been kept I have had the opportunity of seeing only two of this disease.

The one presented this evening and one seen with Dr. Shute were in the Foundling Asylum, where I believe a number of cases of diphtheria developed. Why it should be a rare disease when diphtheria of the throat is so frequent is a question. Possibly the reason may be due to some antitoxic action of the tears or mucous gland secretion which renders the conjunctiva less susceptible to infections or to the ease with which any irritating agent is diluted or washed out by an increased flow of these secretions. That this is not entirely the cause is shown by the fact that the tears may carry the infection through the nasal duct into the nose and throat and start the lesion there, and also by the case of a physician into whose eye some secretion flowed from the mouth of a child suffering from diphtheria, and notwithstanding the fact that it was immediately washed out, the eye was lost by diphtheritic conjunctivitis.

The case which I would present this evening came to my clinic October 26, 1896; a white female, aged thirteen months, with the following history:

Child had had what the mother called weak eyes for a long time, but became worse about October 8th or 10th. October 12th a child, aged six years, in the same family developed sore throat of a mild type, which rapidly recovered, but sufficiently severe to call the family physician who made only two visits and at the same time prescribed for the baby's eyes. In the meanwhile a child from a relative's family came to the house and died from croup on October 23rd, eleven days after. The attending physician did not pronounce the sore throat diphtheria but thought it, "approached that disease". When first seen both eyes were involved; both upper and lower lids showing thickened infiltrated condition with grayish white membrane adherent; much more marked in right than in left.

The cornæs were clear as far as able to examine, but later a marked infiltration of the right (the worse eye) was discovered. Physical condition of the child was good, except being anæmic. It nursed well. Diagnosis confirmed by bacteriological examination. The clinical picture is much the same as when the disease is seen in the throat or nose. The early stage is characterized by swelling of the lids, with the development of a board-like hardness, and with the formation of a grayish white exudate which as the disease advances becomes more abundant and more purulent and when brushed away leaves a bleeding surface beneath.

The treatment in this case consisted in the application of nitrate of silver, with cleansing with bichloride lotion which was later changed to formalin, 1 to 500, and atropin. The membrane rapidly disappeared under this application. How this case originated I failed to discover. The family lost three children seven years since, while living in the same house. That the sore throat which recovered and the case of croup which died, originated from this case of diphtheritic conjunctivitis, I feel assured, and it is called to the attention of the society so that diphtheria may be thought of when suspicious eye discharges are seen.

DISCUSSION.

Dr. S. M. Burnett said: He had lately taken occasion to investigate the question of membranous conjunctivitis thoroughly in all its bearings, and he regretted that bacteriology had not done for us what we expected in the matter of accurate diagnosis. He thought that many of the cases which had recently been reported by Weeks of New York, and by Standish of Boston, which clinically were of a pronounced and malignant form of diphtheria of the conjunctiva, but in which a bacteriological examination failed to show the presence of the Klebs-Lœffler bacillus though staphylococci were found, were undoubtedly diphtheria. On the other hand many mild cases of membranous conjunctivitis which did not present the clinical features of the malignant form were found to have the bacillus. His own opinion was that all those cases which clinically resembled diphtheria, even if the bacillus were not found, should be considered as diphtheria and isolated, and that all cases of membranous conjunctivitis should be treated as diphtheria.

Dr. Wm. C. Woodward said: That apparent difficulty in the bacteriology of so-called "croupous" or "diphtheritic" inflammation, arose from the present faulty nomenclature, and not from any failure on the part of bacteriological science. According to present views, and accepting the nomenclature now prevailing, "diphtheria" was a disease due to the Klebs-Lœffler bacillus. If that bacillus be absent the case was not diphtheria, even though "croupous" inflammation were present. And if that bacillus be present the case was diphtheria, even though the inflammation be of the catarrhal variety.

Dr. Rupert C. Norton said: He thought Dr. Burnett was quite right in insisting that those cases which presented the clinical picture of diphtheria, although the Klebs-Lœffler bacillus could not be demonstrated, should be isolated. He thought Dr. Woodward would probably agree with him in thinking such cases were primarily diphtheria, and were now obscured by a secondary infection with streptococci. This was known to occur in many cases, especially in laryngeal diphtheria, where frequently a double infection could be demonstrated. How it was that the streptococci obtained the upper hand could not as yet be explained. It appeared as though after a time the growth of the diphtheria organisms was in some manner hindered or entirely stopped, and that there then occurred a second infection with streptococci. As was frequently observed, a culture from a diphtheritic membrane on the throat would not always demonstrate the Klebs-Lœffler bacillus; but the growth would be one of streptococci.

Dr. Isidor Bermann said: The failure to find the Klebs-Lœffler bacillus was not a proof that the case was not one of diphtheria, for the bacillus might be present and yet not be found. So the presence or absence of the Klebs-Lœffler bacillus was no reason for dividing cases into diphtheritic and non-diphtheritic.

Dr. W. K. Butler, in closing the discussion, said. He would recognize the difference between croupous and diphtheritic conjunctivitis by the cicatricial tissue which usually followed the latter disease. That in the case reported both the clinical picture, the bacteriological examination, and the cases of sore throat and croup, the latter dying, satisfied his own mind that the diagnosis had been correct.

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CHAS. H. STOWELL, M. D. EDITOR.

THE EDITOR'S TABLE.

The Prevalence of Alcohol. The Daily Medical Journal of this city, (*The Post*) has again been ventilating its superior knowledge of medical affairs. It is already recognized as the standard medium for the dissemination of a certain kind of medical news, through its advertising pages, but now and then the editor himself finds it necessary to give to the public his perfect knowledge of medicine. Probably he cannot help it as his system becomes so filled with a superabundance of medical knowledge that the internal pressure exceeds the external, hence the knowledge oozes out of him as a kind of insensible perspiration.

During the past month said editor gave evidence of his superior learning in declaring that in every human body, in every animal, in every tree, in fruits and grains, there existed a certain amount of alcohol. Of course his statement makes it so, but this eminent authority stands alone in his belief. There is not a single writer of any acknowledged standing who has ever dared to make a statement at all to be compared with this. We were obliged to read the editorial over the second time, thinking the editor was trying to amuse his readers in giving them some great snake story, but we are forced to believe that he thinks he is telling something which is within range of the facts in the case. The truth of the matter is, however, that the truth is not in his statements. The human body is not a walking distillery, neither is a particle of alcohol to be found in the delicious peaches, grapes and apples, nor in the wholesome wheat and oats, as they exist in their normal and healthy condition. Such editorials on the part of our Daily Medical Journal may induce a few more medical advertisers to enter its columns, because it is so natural for "birds of a feather to flock together", but we fear that we must have another editorial from this same source before said editor can consider himself a candidate for an honorary degree of Doctor of Medicine from the Johns Hopkins University.

The Post Graduate. We are informed that the attendance upon one of the post graduate schools in New York city consists of about ninety per cent of country physicians. They are not a lot of boys who have just dropped in to hang around for a few days and get some kind of a certificate to show to their admiring associates and wealthy relatives. They are a company of the most earnest, self-reliant and prosperous men who have labored through great self denial to make themselves leading factors in the communities in which they reside. They come to study; they come to see for themselves; they come with a limited amount of money, but with a brain in the best possible condition to receive therein an immense amount of information. They have been away from hospital facilities for a few years and they now return to gather up the latest methods in all branches. They are not trying to make a mark of 100 in some specialty of a minute portion of the human anatomy; they come rather to make specialists of themselves in every branch, to be prepared to meet any emergency and be fully equipped to discharge every responsibility. These are the men who have fought hard battles, endured great hardships in order that the high functions of the true physician might be more nearly fulfilled. Fifty years ago the country physician was one of the best representatives of American manhood. For a long time his city confreres have tried to discount him, but the tide is turning and today thousands of our brightest and best graduates are looking to the country villages and smaller cities for their future homes.

The New Vaccination. It is only necessary to read current medical literature in order to believe that everything points in the direction of the protective power which the new vaccination promises against a number of diseases. Using the term vaccination in its generally accepted sense and including the use of the serums, we are justified in concluding that this new method promises to render the human race immune to a large number of serious affections. The testimony is quite strong that this vaccination is successful in the treatment of hydrophobia, diphtheria and tetanus, while the evidence is not wanting that it promises much for cholera, and, according to Dr. Yersin, it is a cure for the Plague of Europe as well. The latest contributions to this science are for the prevention of typhoid fever. Of course now that we understand the cause of this fever even the practice of vaccination seems unnecessary; for with the proper disposal of sewage and with a pure water supply we should regard ourselves as quite free from exposure to this disease. Yet there are many persons who must be continuously more or less exposed. Take for instance the soldiers in armies, the nurses attending typhoid patients, the persons living in places where there is an epidemic of the disease, travelers and sight-seers, and you have precisely the conditions where vaccination against the disease is called for.

With all the advance that has been made along this line it is certainly strange that nothing more has been accomplished for protection against such diseases as pneumonia and consumption. The field is so clearly defined for the latter disease that there could be no question when the treatment should be instituted, while the results could be ascertained in a comparatively short time. When such a discovery has been made we might well declare that the crowning act in the science of medicine had been performed.

A Lesson from Figures. The New York State Board of Health has just issued its annual bulletin, in which there is the usual mass of figures. A study of these statistics shows that it is not so fatal to live in large cities as is generally believed. The death rate in cities, in proportion to the population, is but little higher than in the rural districts. But when we take into consideration the crowded and unhygienic conditions of certain portions of each large city, where the mortality must necessarily be abnormally high, it is surprising that the general death rate for the cities is not much higher. If we compare the better part of the large cities with the rural districts it is safe to conclude, from these statistics alone, that if a person follows the same hygienic and moral rules in a city that he does in a small town his chances for long life are equally as good and probably even better.

Changes in Milk from Boiling. Some years ago a manufacturing house consulted us with reference to the question of putting on the market a preparation of dessicated blood. The theory they proposed to advance was that they could procure fresh bullock's blood, dry it rapidly, and in this condition offer it to the profession. When this dried blood was administered it was supposed that the red blood corpuscles would pass readily into the circulation, would there become "re-vitalized" and thus add to the number of red corpuscles in the system. Of course it did not take very long for us to decide such a question. We said that we did not even believe it possible that the red corpuscles of dried human blood would again enter the circulation as such. They would have to be digested the same as any other substance of similar composition.

But a recent number of the *British Medical Journal* contains an article which is about in keeping with this idea of the actual transfer of red corpuscles from one animal to another. The writer strongly objects to the boiling of milk, "Because," he says, "it kills the living cells which are so abundant in fresh milk". He declares that when fresh milk is taken into the stomach "these living cells are at once absorbed without any process of digestion and enter the blood stream and are utilized in building up the tissues." If the milk be boiled these living cells are killed and must then be digested before they can be taken into the system. He puts it in this way: Living cells of fresh milk are living masses of protoplasm which go directly to the building up of tissues; but if the milk be boiled then you are giving dead matter which must be acted upon as any coagulated albumen. Fresh milk gives vitality to infants because there is so much living matter in it, while boiled milk is only so much ordinary food.

It hardly seems possible that such nonsense can be inflicted upon the medical profession and yet we have it presented to us in an elaborate article in the leading medical journal of Great Britain. One would think that the author must have observed the oil globules of milk through a microscope for the first time just prior to writing his article and that seeing these bodies floating about in the field he became wonderfully impressed with their "vitality". Nearly a year ago we had occasion to consult authorities on the question of the relative digestibility of fresh milk and boiled or sterilized milk. We were surprised at the large number of eminent authorities who declared that boiled milk was even more digestible than raw milk, many held that it was equally as digestible, and scarcely one thought its digestibility injured.

State it Clearly. Some writers think it necessary to use obscure and cumbersome phrases to exhibit their profundity of thought. Although medical literature is quite free from this, yet the Mellier Drug Co. have recently sent us a literary production which greatly excels anything we have seen in this line. One of their preparation is composed of drugs "of concurrent and supplementary virtues", and there is "a harmonious and original blending of medicaments that appeals to the educated practitioner especially". One remedy "hastens the processes made possible by its presence". The dose of one preparation is from one to four teaspoonfuls from one to four hours, which, for accuracy and definiteness, exceeds anything we have seen in a long time. However, the writer tells us just how to treat our cases, even being kind enough to describe the wearing apparel, diet, etc., presuming, it would seem, that we know absolutely nothing about these things.

We are told that we "must not suffer a striking antithesis by seducing the ear to mislead the judgment". Another quotation will show what simple, plain and clear language (?) is used throughout the work.

In speaking of a remedy it says that it "exercises a special alterative and eliminative action with positive affinity for the excretory system of glands, necessarily producing a thorough elimination of the toxic and morbific secretions of the system through the various emunctories".

Over-work at School.

The question of over-work at school is one of great interest to all parents and also to physicians because of its relation to the nervous diseases of childhood. Charcot held that over-work in school was rare under the age of fifteen. After that age, however, and during the high school course the conditions are altered. The physical strain and the physical changes associated with the period of puberty are new factors in the case, and over-strain is not infrequent. Especially in girls do we find nervous manifestations about this time. At this age the ambition to excel in intellectual work, the great growing importance of preparation for the work of life, the aroused ambition, all tend to push and crowd the student until limited exercise, too little attention to diet and late hours of study, result in more or less serious disturbances of the nervous system.

This subject has recently been studied in Boston and 150 school children suffering from nervous diseases were taken as a basis for analysis. In about fifteen per cent there was evidence that school work had something to do with producing the disease; but if we understand the report correctly even this small per cent was largely collected from cases over fifteen years of age. At any rate the conclusion from the study of the above cases was that over-pressure at school cannot be considered a factor of any importance in causing the nervous diseases under the age mentioned. If exception be made to the rare cases of precocious children it may be said as a rule, to which there are rare exceptions, that the child in the primary and grammar grades has too little ambition to ever suffer from over-work. When he is tired he ceases his school labors and turns his attention to something else.

Parents are inclined to complain of the pressure of school life while their children are yet below the high school; but this complaint we do not believe is founded upon facts. Children under fifteen years of age do not and will not work to excess. It is in the high school that the parents and physicians must look for this danger, and they are to look for it especially among the girls who appear to be unusually susceptible at this age to any extra pressure on the nervous system.

The Case of Surgeon Hamilton.

We are in receipt of a pamphlet containing the letters, telegrams and documents relating to the transfer of Dr. John B. Hamilton. We have been anxious to see something of this kind for, from all we could learn, there has always appeared to be but one side to the case and that in favor of Dr. Hamilton.

As it is generally true that there are always two sides to every question, so we were anxious to see what the opposing side had to say. A careful reading of all of these documents cannot fail to convince every unprejudiced mind that in this instance at least there is but one side.

While public life often brings with it many disagreeable features and while injustice is frequently done an individual because of the public good, yet in this instance there is no shadow of an excuse whatever for the treatment which Dr. Hamilton has received. A careful study of the case does not give any room for criticism of the course pursued by Dr. Hamilton either, unless in this one particular: He relied upon the positive assurance of a brother practitioner who was under great obligations to him! This seems a hard thing to say, but if Dr. Hamilton had not relied so implicitly on the statements given him, in the presence of witnesses, he would still be in the United States service.

We sometimes criticise our fellow-men because they are so distrustful and yet when such an instance as this stands out prominently before the public, where a man "forgets" solemn promises he has made to those who have greatly aided him, made even in the presence of witnesses, is it strange that the distrustful spirit takes possession of one now and then? Dr. Hamilton is just in the position to understand the old saying that the more you do for a friend the less he will think of you. If the wrong is to be subdued and the right is to rule at last then may we hope soon to see Dr. J. B. Hamilton again in his old position.

The Professional Body-Snatcher.

From an article in a recent number of *The Forum*, by Dr. Thomas Dwight of Howard Medical College, we take the following for its local interest:

"Not only has the professional body-snatcher flourished, but a new figure has arisen,—the dealer in human bodies, who, procuring corpses, either by theft or by corruption, is able to distribute them at a high rate of payment to colleges throughout the country. Sometimes the same man has combined the two professions. The history of the District of Columbia is in this respect a truly disgraceful one. Not until the last Congress was an anatomy act passed. We have had the demoralizing spectacle of some five hundred students among several schools, almost under the shadow of the Capitol, dissecting bodies that everyone knew had been illegally obtained. Washington, especially at the close of the war and for some years after, was a great field for the above-mentioned gentry. They did a large business in several States. Some of them had all the characteristics of their English prototypes. One of the fraternity, Janssen by name, was repeatedly arrested. At Baltimore he departed from the prudent line of stealing only the bodies of the poor, and carried on his depredations in a cemetery for the better class. At Washington, he stole the body of a criminal who had been hanged and sold it to a medical school; the next night he stole it again to sell it to another, but was caught with his booty in a hack. After serving his sentence he actually lectured on body-snatching in one of the smaller theatres, giving practical illustrations with a sham corpse. But the most instructive part of his career is the story of his final departure from Washington. The medical schools made up a purse to induce him to leave, as, during his presence, the police were so active that what may be termed the quiet and respectable pursuit of the business was impossible. His last arrest for grave-robbery was so late as 1884."

NOTES.

The *Chemical News* says that a recent investigator declares it is his opinion that the spectrum of iron is such that he does not believe it a simple element.

A case was recently reported in the *Archives of Pediatrics* where an injury inflicted by the forceps during delivery was sufficiently serious to result in imbecility.

A case is reported from Berlin where a physician used the diphtheria antitoxin on himself with the result that he had a large number of abscesses appear at the point of injection. No sooner would one abscess heal than another would appear, aad this condition continued for some weeks.

Notwithstanding the statement of Prof. Lang of Vienna, that sponges have long since been banished from the surgeon's table, we still have articles on how to disinfect these germ-gathering bodies, while our personal observation has been that they still occupy a prominent place in the surgical outfit.

Dr. Holt says that intra-uterine infection in cases of tuberculosis is very rare, the child often escaping even when the mother is suffering from an active disease in an advanced form. He also says that infection through the alimentary tract is very rare and will not explain more than one or two per cent of all the cases.

Dr. Ransome of England, says that if the decline in the mortality from consumption continues for the next thirty years as rapidly as it has for the past thirty it would then have entirely disappeared. This appears to us as another instance of what can be proved from the pure study of statistics. The death rate from this disease is not declining in this country at anything like such a favorable rate.

A recent writer says he believes we go too far when we conceal from the woman or from members of her family our suppositions that she has a concer.

The Berlin letter to the *Medical Record* reports the death of a physician in that city who was about to be operated upon for hemorrhoids. He had inhaled the chloroform but a few seconds when he collapsed and quickly died. The writer says that if surgeons would only become fully acquainted with the value of local anæsthesia the total number of general anæsthesias would be reducd one half.

A French medical journal reports the case of a baby four months old which had been given a decoction of poppies by its nurse until it had become a perfect opium fiend. When the fact was discovered that the child was taking this preparation and an attempt was made to withdraw it, all the symptoms followed which usually accompany abstinence of the drug of regular opium eaters. When the drug was finally withdrawn the shock was so severe that the child died within a few days.

The last number of the *International Journal of Surgery* gives a report of a case of gunshot wound of the chest with recovery, which is one of the most remarkable in the annals of surgery. The wonnd was 7½ x 4½ inches. Nearly all of the pectoralis major muscle was gone and enough of the ribs cut away to make an opening into the chest about three inches square. The report gives a detailed description of the whole treatment, and concludes with the remarkable statement that after a number of operations this immense wound was successfully closed and now, after four months from the injury, the patient is practically well.

THE MEDICAL AND SURGICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

At a meeting of this Society held March 11, Dr. W. P. C. Hazen read a paper on "A case of Congenital Dislocation of both Knees". The case was that of a female child, where the heads of the tibia were dislocated forward and the legs making an acute angle with the thighs, allowing the toes to touch the abdomen. No patella could be found on either side. The parents would not consent to any line of treatment until during the third month when a rudimentary patella was discovered in the right knee. After reducing the deformities, a plaster of Paris bandage was applied; at the times of changing the bandages improvement was noted and motion was practiced. The child is now fourteen months old, active and large and with the exception of a slight lateral play of the joints, the knees are normal. It is Dr. Hazen's intention to apply an apparatus with a stop-joint at the knee. In the published reports of thirty-five cases, twenty-five were forward dislocations; nineteen were double; in thirteen the patella was absent at birth, and in only two was there a double dislocation in an otherwise perfectly formed infant.

Discussed by Drs. Carr and Douglas.

Dr. I. S. Stone read a paper on, "The causes and treatment of Cystitis." Dr. Stone gave as causes, infectious diseases from urethra or ureters; influence of neighboring organs; organic diseases of the bladder, and chemical irritation. In speaking of treatment he urged careful examination of cases, and as many of these cases are due to organs outside of the bladder, as the kidneys, prostate and uterus attention to these would indicate a rational line of treatment. The treatment of diseases of the bladder has been revolutionized since the advent of the cystoscope. He lays stress upon dilatation of the urethra in women and careful distention of the bladder. He rarely sees cases of acute cystitis, which are not due to direct infection, either gonorrheal or instrumental; the bladder appears to be peculiarly free from diseases of its mucous lining from other causes. In chronic cases he advises distension and irrigation. The chief reason of a cystotomy in cases unattended by a foreign body is to provide drainage. In acute cases he would insist upon rest and attention to diet; give diluents, possibly alkalies. If there is retention he advises irrigations. Sedatives may be required to quiet pain and spasm. In chronic cases we treat upon general surgical principles. The bladder must be rendered aseptic, drained and carefully distended. Cystoscopy is a very difficult operation in the male.

Discussed by Drs. Cowen, Carr, E. L. Morgan, Kober, Hunt, Vincent and Bishop.

BOILED MILK. Practical and everyday experience shows that when milk is boiled it is not only more easily digested, but that it has a nutritive value quite equal to the raw article. Experiments undertaken by Dr. C. Chamouin (*Canadian Lancet*), first with kittens and afterward with infants, showed after exhaustive and repeated trials that the kittens fed on boiled milk were "twice again as fat" as those supplied with the raw milk, and that the boiling of milk is the means of preventing the loss of innumerable lives by gastro-intestinal disease. Not only so, but it is more easily digested, and agrees with a far greater percentage of cases than unboiled milk.—*Modern Medicine.*

BOOK REVIEWS.

AMERICAN HAND-BOOK OF MEDICINE AND SURGERY. A yearly digest of scientific progress and authoritative opinion in all branches of medicine and surgery. By eminent American Specialists and Teachers, under the general editorial charge of Geo. M. Gould, M. D. One volume; 1,200 pages; profusely illustrated. Price $6.50 cloth; $7.50 half morocco. W. B. Saunders. Philadelphia. 1897.

This is a book which is sold by subscription, therefore all our readers will probably have an opportuniny of examining the book in detail. It is one of those volumes which makes a whole library of itself. Each department is filled with the most interesting reading. The editors have put an immense amount of work into this Annual and extensive as is the field it is certainly well covered. Each contributor has given us his own critical commentaries on the part entrusted to him and thus we have a volume which is stamped with the personality of eminent authorities in addition to its value as a collection of abstracts.

LECTURES ON RENAL AND URINARY DISEASES. By Robert Saundby, M. D., Emeritus Senior President of the Royal Medical Society. Second edition. Fully illustrated; 430 pages. Price $2.50. W. B. Saunders. Philadelphia. 1897.

While the chapters in this volume were originally given as lectures, yet the matter has been entirely rewritten in order that it may follow the usual style of text-books. The second edition has been carefully revised and a number of pages have been added on Miscellaneous Affections of the Kidney. The author has long been known as an authority on the clinical and pathological study of Bright's disease. But few subjects can be of more interest to the general practitioner than the treatment of this affection together with that of diabetes, both of which are fully discussed in the volume before us.

HYDE ON THE SKIN. New fourth edition. Just ready. A Practical treatise on Diseases of the Skin. For the use of Students and Practitioners. By J. Nevins Hyde, A. M., M. D., Professor of Dermatology and Veneral Diseases in Rush Medical College, Chicago, and Frank H. Montgomery, M. D., Lecturer on Dermatology and Veneral Diseases, Rush Medical College, Chicago. 815 pages; 110 engravings: fully illustrated. Cloth, $5.25; leather, $6.25. Lea Bros. & Co. Philadelphia. 1897.

While all cutaneous diseases must, from the very nature of things, be disagreeable disorders from which to suffer, yet many of them are of grave character as well. This increasing recognition of the gravity of skin disorders has caused their study to be taken up with great interest during the past few years. A volume from this writer, who is generally recognized as one of the foremost of American authorities and teachers in this country, was first given us some fifteen years ago. During these years Professor Hyde has been obliged to revise his book three times. He has now given us the best results of a life of unusual activity in this study. Both the general practitioner and the specialist will certainly be prompt in availing themselves of this opportunity.

HOW TO LIVE LONG AND WHY WE DO NOT LIVE LONGER. By J. R. Hayes, M. D., Medical Examiner Bureau of Pensions, Washington, D. C. Pages 180. J. B. Lippincott Co. Philadelphia. 1897.

The author gives us a very interesting study here of questions of environment, heredity and hygiene with the conclusion that if these subjects were better understod we might maintain our mental and physical activity for a much longer period than is usually the case. The volume contains much that is interesting and valuable and we only wish that many of these teachings could be put into practical operation. Although it is not everything to live to an extreme age, yet to make a people more healthy is certainly to make them more moral.

THE YEAR-BOOK OF TREATMENT FOR 1897. A critical review for practitioners of medicine and surgery. Crown octavo, 488 pages. Cloth, $1.50. Philadelphia and New York. Lea Bros. & Co. 1897.

The Year-Book of Treatment gives a critical epitome of the progress made in all branches of practical medicine for the preceding twelve months. For thirteen years this particular Year-Book has been given to the profession. Twenty-five authorities have been employed on the work and as a result we have a volume systematically arranged, well indexed, one convenient to be consulted for that which is the very latest and best.

INEBRIETY, ITS SOURCE, PREVENTION AND CURE. By Chas. F. Palmer. Pages 110. Fleming H. Revell Co., Publishers. 1897. Price 50 cents.

This is a discussion of the whole subject of inebriety and the best methods for its treatment.

The Medical Society of the District of Columbia is responsible only for the "Transactions" published in this journal. It is entirely free from any connection with the Editorial and Business management.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

EDITING COMMITTEE:

W. W. JOHNSTON, M.D., GEO. M. KOBER, M.D., JAS. D. MORGAN, M.D.

MEETING OF NOVEMBER 18, 1896.

Dr. S. C. Busey, President, in the Chair.

THE PHONENDOSCOPE.

Dr. W. W. Johnston exhibited the phonendoscope and said:

The conception of the phonendoscope originated with Bianchi, Professor Agrege of the Faculty of Parma, and was described in the *Clin. Med. Firenze*, 1895, I, 421–427. Bianchi says he experimented with the hollow stethoscope provided with "hearing tubes", and then with the mikrophone and these experiments (literally) "suggested to my thoughts to seek an instrument, which without partially losing its vibrations (as happens with the stethoscope), and without exaggerating them (as happens with the mikrophone), could be employed as well for the auscultation of the natural tones in the organism, as for those tones artifically produced, and without any risk of thereby altering their tone-color". "A reliable physicist, Prof. Eugenio Bazzi, consented for the realization of this thought, to undertake with me a series of trials and investigations, from which finally an apparatus resulted, which united in itself the desired properties, and could be used not only for medical investigation but for a many sided employment in the hearing of the slightest noises originated in the living body, be they natural or artificially produced."

In this instrument sound waves cause a diaphragm to vibrate, the vibrating motions of the diaphragm corresponding to the actuating force. The loudness of a sound depends upon the magnitude of the changes of pressure-amplitude of the vibrations in the vicinity of the ear. This usually bears a relation to the force of a blow as in percussion, or to the amplitude of movement in the air spaces and cavities, as in auscultation. It must be remembered that the greater intensity of bronchial breathing and bronchophony is due to the transmission through the solid lung of the vibrations in the bronchial tubes, vibrations that have greater amplitude as compared with those occurring in the pulmonary air vesicles.

The phonendoscope increases the intensity of sound by intensifying or making more ample the vibrations that reach the ear. This is done by means of a diaphragm which is made to vibrate by being placed in contact with the source of sound waves.

The diaphragm is made of an ebonized plate which forms the bottom of a metallic box or capsule, the whole constituting a reasonator. Two converging apertures on the opposite side of the ebonized membrane are for the insertion of the tips of rubber-ear tubes. Between the diaphragm and the tips of the ear tubes is a spiral spring which moves with the vibrations of the plate.

The advantages claimed for this instrument are:

1. Ordinary sounds, normal and pathological are heard more clearly because they are rendered more intense—as sound of lungs, heart, fœtal heart, placental murmur, etc.

2. Sounds, not usually heard, are also heard, as the sounds produced during digestion, the movements of muscles, joints, the crepitus of fractures and the rubbing in dislocation, also the capillary circulation.

The phonendoscope can be employed for:

1. Comparative ausculation. Two instruments being applied at the same time, one tube from each being in contact with the ears.

2. Class demonstration.

3. With the membrane and rod the instrument has a much wider application. Vibrations, provoked by stroking, enables one to map out the position of the organs in the thorax and abdomen, their boundaries, changes in texture as in solidification of pneumonia or tuberculosis, pleuritic effusion, emphysema, etc.

It is claimed that the division of the lung into lobes and the heart into ventricles and auricles can be made out.

The advantages of the phonendoscope may be said to be:

1. Increased intensity of sounds, normal and pathological.

2. Greater accuracy in mapping out position of organs in the chest.

3. Convenience of method of use as compared with stethoscope.

4. Discovery of sound not otherwise audible.

5. Class demonstration.

Literature—All references that the Index Medicus contains to date:

Bianchi (*A*). Del fonendoscopio e della sua applicazione practica in medicina. Clin. med., Firenze, 1895, I, 421–427.

Bianchi (*A.*) Das Phonendoskop und Seine Anwendung in der medizinischen Praxis. Aerztl. Rundschau, Munchen, 1896, VI, 355–358.

Also: Wien med. Bl., 1896, XIX, 326: 342.

Also: transl. (abstr.): France med., Paris, 1896, XLIII, 517.

Comte (*C.*) La phonendoscopie de Dr. Bianchi. Compt. rend. soc. de biol., Paris, 1896, 10 s, III, 222–226.

Phonendoscope (*Le.*) Repert. de therap., Paris, 1896, XIII, 64–66.

Pribram. Ueber das Phonendoskop von Bianchi und Bazzi. Prag. med. Wchuschr., 1896, XXI, 366–368.

Schwalbe (*J.*) Phonendoskopie. Deutsche med. Wchuschr., Leipz. und Berl., 1896, XXII, 498–500.

DISCUSSION.

Dr. Chas. L. Miner, of Asheville, N. C., said: While he could add but little to what Dr. Johnston had said, he might be pardoned for saying something about the instrument. Any instrument which would give us added information as to the condition of the abdominal and thoracic organs would certainly be of great value. He did not know any more than the general world knew as to the status of the instrument, but he would like to say what he had found it to be. In regard to the physics of the instrument it appeared that whereas in the ordinary stethoscope there was an open body of air acting as the medium of transmitting the sounds, in the phonendoscope we had an inclosed body of air, limited at one end by a rubber diaphragm, at the other by the tympana of the hearer's ears which was a much better transmitting agent, for this purpose. The spring within this diaphragm also seemed to serve the purpose of giving to the gutta percha surface of the instrument added resiliency. The whole system representing the closed wooden air reservoirs of musical instruments.

As regards the advantages and uses of

the phonendoscope, and its use in lung cases, in which he was especially interested, it seemed particularly valuable for mapping out the areas of incipient apical consolidation, which was not always easy by ordinary methods. Another valuable application of the instrument would be to magnify sounds, so as to demonstrate less audible and less familiar ones clearly.

THE LOCAL TREATMENT OF ABSCESSES AND PHLEGMONOUS CONDITIONS.

By James Stuart, M. D.

[ABSTRACT.]

The paper dwelt largely with the methods employed by the writer at the Emergency hospital of this city, in the prevention and treatment of this class of cases, and of local remedies to prevent the formation of abscesses, phlegmons, etc., by rest, elevation of the parts, and the application of ice or cold during the first twenty-four hours. The writer referred to the efficacy of hot boric fomentations in the form of pads of gauze wrung out of hot boric solution (ʒi to a quart of water) applied as hot as the patient can bear them, these being well covered with oiled silk to keep in the heat and moisture. If the inflammation involves the hands or feet, he prefers immersion of the parts for five to eleven minutes in the hot boric solution. This treatment, preceded in some instances, by early multiple incisions will bring about resolution when other methods fail. Incisions relieve the pain and tension, and afford the cells and tissues a chance to regain their original activity.

When pus has formed the incisions should be free enough for thorough evacuation, and should be kept open by a drainage tube or by packing with wet bichloride gauze, this is especially necessary when the incisions have been made through dense fascia, for the natural tendency is for them to close up and pen in the pus. In all severe inflammations hot boric fomentations must be kept up. Abscesses after evacuation should be irrigated and dressed daily; when seated near important organs or structures, as deep seated abscesses of the neck, near bones or joints. Procrastination is extremely hazardous.

The best way to abort a boil is to incise freely, dress antiseptically and apply hot fomentations. Whitlows and bone felons can be rapidly cured by incising, packing the incision with wet antiseptic gauze and soaking the finger every hour for five minutes in hot boric solution. It is rare to see pus form, if this treatment is resorted to early enough. If pus has formed the above is still the proper treatment, plus thorough evacuatiod and flushing. The incision made in true bone felon must of necessity be carried through the periosteum. When necrosis of a phalanx has occurred, amputation should be avoided since a good result can often be obtained by simply removing the sequestrum, the periosteum left behind reproducing bone.

There is always great danger of the infection spreading up into the palm and fore-arm along the tendon sheaths but more especially if they are unnecessarily damaged by incision. When pus has formed along a tendon sheath, a grooved director should follow up the pus track, counter openings being made down upon its points, after which it should be thoroughly irrigated and drained; hot boric fomentations and frequent irrigations with a one per cent solution of the acetate of alumina as recommended by Senn are especially useful in these conditions.

The *Otis Method* of treating buboes which have suppurated, is an excellent way of treating all circumscribed pus cavities when the pus is fluid, being applicable to abscesses elsewhere than in the groin, especially about the face and in all suppurating glands of the neck, where scarring is to be avoided and where a large incision would be dangerous.

Otis first renders the part aseptic, then he makes a small incision into the pus cavity just large enough to insert the nozzle of a small glass syringe; after gently squeezing out some of the pus, he flushes out the remainder by repeated injections of a 1–1,000 bichloride solution, until the cavity is clean; he then injects warm sterilized iodoform vaseline ten per cent into the cavity, using a small glass syringe. This syringe is now quickly withdrawn and a cold wet antiseptic dressing, bichloride for instance, is immediately applied, which solidifies the vaseline and prevents its escape from the cavity. The ointment should fill, but not distend the cavity. The writer believes curretting the cavity first, except in dangerous regions, a decided adjunct to this treatment and finds hydrogen peroxide a valuable agent to use, prior to the bichloride irrigation. The wet bichloride dressing used should be renewed every other day, and it is seldom necessary to reinject the cavity, one injection effecting a cure at the end of one week, and sometimes even quicker.

Tuberculous abscesses are best treated by excision of the whole tubercular mass, especially where glands are involved. In tuberculous abscesses connected with bone, however, it is rare that the focus can be reached and all the tubercular tissue removed. In such cases aspiration with iodo-formization should be given a fair trial, on account of its simplicity and freedom from danger. The strength of the iodoform glycerine used should vary in accordance with the size of the cavity to be injected, since too much iodoform must not be injected at one time. When repeated aspirations in conjunction with antiseptic irrigation and iodo-formization fail to cure and the focus can be reached and removed, Barker's method of small incision with thorough curettage of all tubercular tissue with a sharp gouge, or a freer incision with a similar removal of the tubercular tissue, followed by iodoformization and suturing of the incision, appears safer than incision, curettage and packing the cavity with iodoform gauze. The great danger is secondary infection and sepsis. All tubercular tissue must be removed or reinfection may occur, or again, the wall of granulation tissue having been removed, acute miliary tuberculosis may follow. Retropharyngeal abscesses, which are tubercular, should always be opened behind the sterno-cleido-mastoid muscle after Hilton's method. Since we know that many abscesses of the liver have been cured by aspiration with antiseptic irrigation, we ought to get good results in deep seated abscesses of the liver treated by this method with iodo-formization.

Lymphangitis following a poisoned or septic wound, should be summarily dealt with; the old wound, if visible, having been first opened up and thoroughly cleansed, a wet five per cent carbolic dressing should be applied over the whole inflamed surface, this being well covered in with oiled silk, glazed cotton and a bandage. Hot carbolic fomentations are even more effective, and where the leg or fore-arm is involved, it should be submerged in hot five per cent carbolic solution every hour for a period of five minutes. If the inflammation does not show early signs of abating, multiple incisions should be made and a one-half per cent carbolic solution substituted for the five per cent, or a non-toxic boric acid solution used.

Mild cases of cellulitis and phlegmonous conditions, with no special involvement of the lymphatics or tendency to spread, should be kept enveloped in hot wet boric or carbolic dressings or submerged in hot boric or carbolic solution every hour for five minutes; but when severe and spreading there is little chance of resolution occurring, unless we resort to small multiple incisions, followed by hot boric fomentations, or by soaking the part itself in hot boric solution.

In phlegmonous cellulitis of marked degree, larger multiple incisions are the rule. In suppurating cases, after multiple incisions and thorough evacuation of the pus, continuous hot fomentations with frequent irrigations is the best treatment, but even this often fails and amputation becomes necessary.

DISCUSSION.

Dr. W. P. Carr said: He would like to mention the effect of dry heat in the early stages of phlegmonous conditions, particularly of the hand and foot. It was well known that punctured wounds of the hand and foot were often extremely painful, and even when they were opened the pain often continued to be very severe. In several cases of that sort he had recently found great relief to follow the application of dry heat. He incased the hand or foot in a paste board box and placed under it an alcohol lamp or a Bunsen burner. The pain was always entirely relieved in fifteen or twenty minutes, and the cases continued to do extremely well. He did not know whether it was possible to sterilize the human hand with dry heat, but it was not beyond the range of possibility.

THE ADVANTAGES OF THE PLASTER OF PARIS CORSET IN THE TREATMENT OF POTT'S DISEASE.

By A. R. Shands, M. D.

There is no malady in the whole range of orthopedic surgery that is followed by a more disfiguring deformity than Pott's disease when it is not properly treated in its early stage. The incentive to be thorough in the early treatment should be stimulated to the utmost by the fact that most excellent results are obtained by proper treatment and that when the deformity is once established the prospects of correcting, or even improving the same, are practically none.

The indications for the treatment of Pott's disease are so plain, the principle involved in the numerous methods is identically the same, viz: *protection* and *fixation* of the spine in the best possible position during the progress of the reparation processes of nature. In the mechanical treatment the two most important points to be always kept in mind are first: the jars that come upon the spinal column are received in the bending of the column forward; second: the pressure coming from the superincumbent weight of the head and trunk. To meet these indications numerous methods and all sorts of mechanical appliances are used.

The recumbent method of obtaining

protection by relieving superincumbent weight is to the writer's mind an ideal one, but its field of usefulness is limited. To obtain a good result from this method it is necessary to keep the child in bed for a period of time, varying from one to two years. This does not mean in a comfortable bed, but the child must be strapped to a horizontal frame, properly padded of course, so as not to be allowed to sit up or lie on one side, thereby twisting the spine. If the treatment by recumbency is not thorough in every respect it is worse than no treatment at all. It is surely very difficult to carry out this method in detail in a private family, not so bad of course in an orthopedic hospital where the patient is under the eye of a trained nurse who appreciates the object aimed at. A long confinement in the recumbent position is however not calculated to improve the general health, a result most desirable, as the disease always exists in tubercular subjects, in whom there is nothing more important than healthy exercise in the open air. It is true the patient can be taken out in the open air on the frames which are usually on wheels, but even then the moral effect of being bedridden is very depressing even in children. Although the recumbent method is advocated by many eminent orthopedic surgeons, it has not been my good fortune to see any very brilliant results from it that could not have been obtained by another method with much less trouble to the surgeon and with greater comfort to the patient.

It must be realized in the beginning of the treatment that a cure by ankylosis is the best to be expected, hence whatever method is to be adopted should be based on the following rules:

1. To fix the vertebral column and place it in the best possible position.
2. To remove the superincumbent weight from the diseased bony surface.
3. To prevent deformity, or reduce it to a minimum, by supporting the trunk especially in front.

These rules being fully appreciated an apparatus to best execute them is to be selected. In selecting an apparatus several points are to be considered. All complicated appliances should be avoided. It should fix firmly the site of the disease; the weight should be taken off its affected region by transference of the pressure from diseased to healthy spots; the apparatus should be comfortable, cleanly and readily removed; undue pressure on all of the bony prominences should be avoided or excorations will result, and lastly it should be such that the surgeon can readily apply himself.

Thanks to the genius of Dr. Lewis A. Sayre we have in the plaster of Paris corset an apparatus that fulfills every indication necessary in the mechanical treatment. The plaster of Paris corset when properly applied has the advantage of being suitable in the vast majority of cases. It enables the surgeon to be entirely independent of the instrument maker, a fact that is often a great financial consideration to the patient. It can not be easily removed at the whim of the patient; there are no buckles and complication of straps to get out of order, or it can be made with as little weight as the average steel has. It puts the poorest hospital patient within reach of just as good treatment as the millionaire on account of the cheapness of the material. Uncleanliness is surely a great objection to the solid unremovable plaster of Paris jacket, such is not the case with the corset such as I show you here. The solid jacket will become loose and fail to give the proper support if the patient looses flesh, which is often the case, with the corset this objection is easily overcome by setting the laces farther back. Foreign bodies are likely to get behind the solid jacket and by imbedding themselves in the flesh cause foul smelling ulcers. I saw a child several years ago brought into the hospital for Ruptured and Crippled in New York, who had gotten a small piece of anthracite coal behind the jacket it had caused an ulcer which proved by microscopical examination to be the seat of entrance of the germ of lockjaw of which the child died on the third or fourth day. The removable corset admits of frequent inspection of the spine to detect the formation of abscess and at the same time admits of a discharging sinus being dressed. I have seen patients suffer the tortures of the damned by bed-bugs or fleas making their habitat under the solid jacket. In these days of aseptic surgery it is impossible to be clean and have a plaster jacket on for months at a time. Some may say that the removable corset does not afford as efficient support as the solid jacket, but I am quite sure that the doubts of the most skeptical will be removed by a fair trial of a properly made corset.

I have found the solid jacket to possess no advantages over the corset except in a few cases of cervical Pott's in the acute stage that were accompanied with great pain and muscular spasm. In these cases I have found it necessary to obtain absolute fixation to extend the plaster over the head and forehead just leaving out the face and ears. In this way the cervical spine can be immobilized, which will relieve the muscular spasm and pain by putting the reflexes to sleep, and after a month or six weeks a corset with proper head support, commonly called a jurymast, will meet all of the indications.

Here I would like to report a case of Pott's disease involving the fifth and seventh cervical vertebræ and probably the first dorsal vertabra, referred to me by Dr. Fry of this city, on the twentieth of November, 1895. The condition of this patient, a child five years old, was at the time of my examination exceedingly unfavorable. There was an exaggerated condition of pain and spasm extending over the region of all of the cervical and the upper dorsal muscles; there was paraplegia accompanied with marked exaggeration of patellar reflexes and ankle clonus the result of compression-myelitis; also bladder and rectal disturbance. The pain and reflex spasm was so great that the least effort to move the patient would cause it to scream. The day after my examination, assisted by Dr. Fry and a nurse, I applied a solid plaster of Paris jacket extending it over the neck and head leaving the face and ears out. To obtain a firm support in extending the plaster over the head it is necessary to reinforce it by incorporating bars of stiff steel (1–16 x 1–2 inch). This immobilization of the cervical spine enabled the child in a few days to be taken out in the open air. On January 8, 1896, the child was brought to my office where a plaster corset with jurymast was applied. At this time the paraplegia was sufficiently overcome to allow the child to stand alone and with assistance to walk across the room. By February first the child was able to run about and play with its companions, wearing the corset and jurymast.

In applying a jacket there are several important points in the technique to be considered. First of all it must be appreciated that there are certain cases that can not be suspended in the usual suspension apparatus without causing great pain, nor is such procedure free from danger of producing asphyxia. I refer here to cases of cervical Pott's accompanied with great pain and spasm; this difficulty can be easily overcome by using a cheese cloth hammock instead of the suspension apparatus. All of the clothing should be removed down to the hips and a tight fitting, seamless shirt put on long enough to be turned back for the outside covering of the corset. All of the bony prominences should be well protected from undue pressure by being well padded with some soft material. I use a cotton felting such as every good housekeeper uses under the dining table cloth. The best materials for making plaster bandages are a surgical crinoline sold by Claflin and Company, New York and the S. S. White dental plaster. The peculiarity of this crinoline is that it is sized with starch and not with glue as is the commercial crinoline. A great deal of care is necessary to see that the plaster is equally distributed in the meshes of the crinoline.

The length of time to keep a child suspended is worthy of attention. With bandages made of materials, such as I have mentioned, one, experienced in working plaster, should not consume more than ten minutes from the time the first bandage is applied until the corset is cut down. There is no trouble in the plaster setting in that time when starched crinoline is used. Never use salt or alum to hasten the setting of the plaster for it will destroy its durability by causing it to become brittle, for then it will absorb moisture and become weakened.

For the corset to afford efficient lateral support it should extend well over the crests of the ilia and to give efficient antero-posterior support it should extend well up over the chest. As the greatest support is necessary over the crest of the ilia and over the whole of the anterior aspect of the corset, these points should be reinforced by doubling the bandages thereby making the corset thicker at these points. As soon as the last bandage is applied the margin of the corset should be marked with the point of a knife, care being taken that the scallops in the axillæ are deep enough to give free use of the arms; the borders need not be trimmed until after the corset is removed. A strip of cotton felting should extend from the top of the sternum to the pubic bones, between the shirt and the plaster, to protect the patient from the point of the knife when the jacket is cut down.

The last and one of the most important points is, as to when, the jurymast is to be used in conjunction with the corset. My rule is to use it always if the seat of the disease is above the seventh dorsal vertebra and even as low as the ninth dorsal, if any symptoms of compression-myelitis exist.

DISCUSSION.

Dr. G. L. Magruder said: The views of Dr. Shands corresponded with his own experience. In the early days of his professional career Dr. Magruder had had charge of the department of diseases of children in the Emergency Hospital, or the Central Dispensary, where he had many cases of Potts' disease to deal with, and he uniformly applied this jacket. It was sometimes marvelous to see the results that followed this treatment. He had had the same experience of foreign substances getting under the jacket which Dr. Shands got with the method of treatment by the permanent corset, and on one or two occasions with very serious results. The removable plaster jacket, or laced corset, could easily be removed and cleaned, but it might be kept on twenty-four or forty-eight hours, or even longer. One great advantage of the plaster of Paris jacket over every other form was its better ventilation. A number of other jackets had been advocated, but they were not to be commended for they could not be ventilated, nor were they any cleaner or lighter than the plaster of Paris jacker when properly made. That the plastet jacket was well ventilated could be demonstrated by passing the stem of a pipe under the jacket, when the smoke could be seen to pass through the pores. Dr. Magruder related several cases which convinced him of the superiority of the method of treatment by a jacket over the rest treatment. He had found that it was not always possible to get the starched crinoline for the purpose, so he used the ordinary crinoline, first boiling it to get rid of the glue. He used piano felting for padding, and if the child was at all emaciated, and the bony prominences and angles were very sharp he also placed some of the felt between the plaster and the seamless shirt; for he had found that this added much to the comfort of the corset.

Dr. J. Ford Thompson said: He had used this jacket ever since Sayre first introduced it to the profession, but some years ago he was in the habit of sending his patients, after the acute symptoms subsided, to Dr. Marshall of the Army, who made an excellent jacket of paper, or papier mache, which was lighter and cleaner than felt. The only advantage which it possessed over the plaster jacket was its greater cleanliness. He disagreed with Dr. Shands as to the propriety of letting the parents remove and reapply the jacket, for it furnished more support to the spinal column when it was put on with the child suspended than when put on by the parents with the child lying in bed. At the Children's Hospital the results of wearing a jacket were sometimes so marked that he often doubted the correctness of his diagnosis. We did not expect to cure other forms of tuberculosis with rest, and Potts' disease was a form of tuberculosis. We could not expect to cure it simply by rest if the disease was at all advanced. Where there was any dead bone it should be removed. A plaster of Paris corset accomplished nothing in this disease except support. He could only cure a child by this method if he saw it in the early stages. In the later stage, where an abscess had formed, the surgeon could operate. He had curetted the bones, and the results had been good, so far as reducing the fever was concerned, and he would even open the spinal canal if necessary, and when there was any extensive disease on the bones it should be curetted and got rid of, otherwise it must be left to nature. A plaster jacket was simply a splint, and answered this purpose admirably, but the tendency was to exaggerate it into something more than a splint.

Dr. Jas. Kerr said: He had one word to add in regard to the treatment of Potts' disease by recumbency. It was almost impossible to carry out the treatment by jackets thoroughly in infancy, owing to the protrusion of the abdomen and the undeveloped pelvis it was practically impossible to maintain the degree of extension in which a plaster jacket was put on. Dr. Thompson had struck the key note when he said that a plaster jacket was only a spinal splint. It did not cure the disease, nor did it correct the deformity. It would generally be found that deformity was occurring in the practice of those gentlemen who were applying plaster jackets all the time. He believed that all cases of acute Potts' disease should be treated by recumbency. The child would improve more rapidly under the rest treatment than with a plaster jacket, and he claimed that in acute Potts' disease in young children much better results would be obtained from recumbency than from a plaster jacket. Dr. Shands had objected to the treatment by recumbency because the child would have to be kept in bed for years, but Dr. Kerr denied that this was ever necessary. Lovett in Chicago, had recently read a paper on the mechanical insufficiency of the plaster jacket, and claiming that recumbency was the only proper treatment in the acute stage of Potts' disease. Where there was pain and muscular spasm the child should be put on his back and kept there. The plaster jacket would not do all that Sayre had claimed for it, nor was the stature of the child increased by wearing it as had been claimed. On the other hand it was shown that the length of a child did increase from one quarter of an inch to an inch during recumbency. The objection commonly urged against recumbency was that the child must be kept in the house, and this was an objection which applied to the treatment of all forms of tuberculosis. Dr. Kerr maintained, however, that it was not necessary to keep a child in the house, for a very convenient apparatus could be made out of an ordinary baby carriage by putting a small tray upon it on which the child could be lain, and transferred from the carriage to the house as required. There was no difficulty in keeping a child quiet on the flat of his back in this way, and by means of this apparatus he could be carried upstairs. And if extension were required, it could easily be attached to this carriage. He had had several cases of Potts' disease last year, and in every case the child was out in the open air every good day. The jacket was a very valuable means of treatment after the acute symptoms had subsided or when the disease was located in the lower vertebræ; in all other cases recumbency was the better plan of treatment during the acute stage, at any rate especially in very young children.

Dr. W. P. Carr said: He had not understood Dr. Shands, nor anyone else, to claim for the plaster jacket any mysterious curative power. It was only claimed to be the most perfect splint yet devised. We would be misled by drawing analogies between tuberculosis of the spine and tuberculosis in other regions. It was strange but true that tuberculosis had a different history and prognosis in each tissue that it attacked. It was hard to realize that pulmonary tuberculosis, tubercular meningitis, lupus, scrofula, Potts' disease, etc., were all due to the same cause. In the skin, which we expect to be most amenable to treatment, it was most intractable. In bones the prognosis was much better for arrest of the disease. We were bound to admit that many tubercular joints were cured in the early stages by rest or fixation, and in the spine, probably on account of the great vascularity of the bodies of the vertebræ and the absence of serous membranes, the prognosis was better than in any other situation. Dr. Thompson's good results at the Children's Hospital were in accord with his (Carr's) own observations. They were so good as to render operation unjustifiable, certainly in the earlier stages. It would seem that there was little to gain by operating in the second stage, when almost the entire bodies of one or two or three vertebræ would have to be removed. This would necessitate wearing a plaster jacket during the period of repair, which would be nearly or quite as long as without operation. It seemed to him that operation was only proper when a sinus persisted after the opening of an abscess, and this would limit it to a very few cases. The plaster jacket was especially useful in the earlier and acute stages. Deformity could be entirely prevented and statistics showed that abscess was uncommon, when fixation was accomplished early. It would be as reasonable, in his opinion, to wait until the acute stage of fracture had passed to apply splints, as to wait for the subsidence of the acute stage of Potts' disease before resorting to fixation. When acute cases did not do well in plaster there was probably some fault in its application. It was not usual to fix and support the head unless the cervical vertebræ were affected. Dr. Shands had referred to the necessity of such support even when the disease was no higher than the mid-dorsal region, or ever lower.

Dr. A. R. Shands, in closing the discussion, said: There was nothing he could add to what had already been said, but in reply to Dr. Kerr's and Dr. Thompson's remarks he never allowed the parents to remove a jacket without instructions that it was not to be removed without supporting the child, and in replacing it, the child should be put on his elbows and knees. The rest of the ground had been thoroughly covered by Dr. Carr.

MEETING OF NOVEMBER 25, 1896.

Dr. S. C. Busey, President, in the Chair.

Foreign Bodies in the Air Passages.

Dr. J. Ford Thompson reported two cases of tracheotomy (with specimens) for foreign bodies in the air passages.

I. Eight days ago the patient, a healthy robust child, three years old, choked while eating a piece of watermelon; this was immediately followed by difficult breathing which lasted throughout the night with paroxysms of cough. The next day on ausculation, a curious "click" was heard in the sternal region of the chest which was perceptible to bystanders whenever coughing was induced. Air appeared to enter both lungs. On palpation a bronchial fremitus was noted on deep breathing. There was no pain.

As it was deemed best to operate immediately, the child was placed upon the operating table, chloroformed, and a typical tracheotomy was performed. The childs neck was found to be short and quite fat. When the trachea was exposed the first three rings of the latter were incised and the edges controlled by silk sutures. As no violent respiratory effort followed the opening into the trachea, tracheal forceps were gently inserted and a search was made above and below for the foreign body which was located at the lower end. The chloroform narcosis being complete no manipulation had heretofore excited cough but its suspension was ordered and a feather gently introduced into the wound. A short cough soon followed which expelled a watermelon seed.

After the operation the child was entirely comfortable. On the second day there was a slight emphysema of the cellular tissue of the neck; this continued for twenty-four hours and then disappeared.

II. Last August a child, aged fifteen months, was playing with seashells and although no one saw him swallow any of them, his mother noticed that he rolled over on the floor in a violent fit of coughing with extreme cyanosis. He spit up mucus tinged with blood but not since then. Violent paroxysms of coughing have recurred from time to time.

When admitted on November 17, 1896, there was harsh breathing on both sides; some few crepitant and subcrepitant rales. A sharp "clicking' sound was heard when the child inspired in screaming; at the same time the paroxysmal cough came on with cyanosis and evident pain. Temperature found to be 99.2. On November 18, the child's attacks of coughing amounted to such suffocation and cyanosis, that an operation was deemed necessary.

When the trachea was opened, immediately violent respiratory efforts began, accompanied by hard paroxysmal coughing when the foreign body was expelled into the hand of one of the nurses. It proved to be a small, flat stone, smooth and somewhat oval. Nine hours after the operation the child's temperature was 104.4 but nothing beyond restlessness was noted. He had coughed twice only, and on ausculation it was found that air entered both lungs freely.

From this time recovery was rapid.

III. Dr. Frank Leech reported a case with specimens of a foreign body retained in the left bronchus for a period of four months.

On October 2, 1896, I was called to see Mrs. P., aged forty-five years, white, who gave the following history: In the early part of July last, while at dinner, she was seized with a violent attack of coughing, which lasted several minutes. She was eating chicken at the time and thought perhaps she had gotten a piece of bone in the wind-pipe. The following day several severe attacks of coughing occurred without any apparent cause. The cough continued and was much worse and more frequent with a muco-purulent expectoration for the last six weeks. She lost flesh and appetite and had sweats at night.

Physical examination of the chest: Slight dullness at left apex with a few dry rales; vocal resonance increased at right apex wfth loud respiratory sounds; heart normal.

From the history she gave and my examination of her chest, I was induced to place her on oil of creasote(Beechwood) and cod liver oil, three times daily.

October 12, 1896. She has been taking the creasote and cod liver oil regularly. Cough less frequent, expectoration less and physical examination of chest about the same. Appetite better. No more sweats at night. Feels generally much improved.

On October 28, the coughing was much more frequent; slight streaks of blood mixed with expectoration. Physical examination of chest showed slight dullness at left apex, fine moist rales over both lungs, anteriorly and posteriorly. The temperature was 101°. Gave her an expectorant mixture; had a mustard plaster placed on her chest and ordered absolute rest and restricted diet. Pain subsequently was severe one inch below the clavicle and one inch to the left of the sternum.

October 30, 1896. When I made my visit to-day she handed me the two pieces of chicken bone which I here present. They had been coughed up this a. m., after a violent paroxysm. She of course felt greatly relieved and wanted to get up at once. Finding her temperature normal I allowed her to do so. She made a rapid recovery from the bronchitis and is today perfectly well.

DISCUSSION.

Dr. T. A. R. Keech said: These cases brought to his mind the case of a boy, fourteen years of age, who got into his lungs a porcelain button. It was lodged just below the bifurcation of the trachea on the right side, and could be distinctly located. It remained in this position about three months, giving rise to a profuse muco-purulent expectoration. The boy was visibly wasting away, so Dr. Keech tried to devise some method of getting rid of the foreign body. Having first instructed the boy how to inhale and exhale deeply at a given signal, he took a plank about seven feet long and fifteen inches wide, so that when he was laid upon it his head projected over one end with hands and arms extended to the floor for support. The boy was placed upon this plank and the father told to raise it to an angle of about forty-five degrees, and then at a word of command, the boy began to inhale and exhale deeply while Dr. Keech assisted him by making forcible pressure on the posterior thorax, and to his delight the button rolled out on the floor with the first of these forced expirations.

Dr. J. Ford Thompson said: He had nothing to add to the subject of tracheotomy for foreign bodies in the air passages, but he had something to say about Dr. Keech's method of treating such cases. That method was nothing more than a modification of inversion, which was a favorite remedy with the laity. Dr. Keech's method was open to the same objection and the same danger as inversion, which was the possibility of the foreign body, after being expelled from the bronchus, lodging in the trachea and causing speedy death by suffocation.

Dr. T. A. R. Keech replied that he was prepared at the time to perform tracheotomy should it become necessary.

ETIOLOGY OF DISEASES OF THE SKIN.

By James C. McGuire, M. D.

Predisposition to cutaneous maladies is influenced by heredity, age, sex, locality, race, idiosyncrasy and state of the general health. It is difficult if not impossible to arrive at any definite conclusions in regard to heredity; many cases are due simply to coincidence. Psoriasis is thought by some to be hereditary. Dr. A. Weyle of Berlin, regards this as the sole cause, and yet in the majority of cases that have come under my observation, no such transmission could be traced.

It is unquestionable true that some few diseases, such as syphilis and ichthyosis are transmissible, but even in these cases there must be some unknown factor that causes a parent to transmit the diseases to one offspring and not to all others.

Age is a predisposing factor in some cases. Tinea tonsurans does not appear in adults. Tinea versicolor does not affect children. Prurigo always appears in the second year (Kaposi). Chloasma and epithelioma do not occur before puberty. Acne is chiefly a disease of puberty.

As to sex, physiological and pathological conditions of the uterus may cause chloasma and some other diseases: few cases of impetigo herpetiformis have been reported; Kaposi refers to thirteen cases he has observed in the Vienna clinic; of these twelve occurred in pregnant women. Three-fourths of all cases of scleroderma, and two-thirds of those of lupus erythematosus occur in females. Idioscyncrasy is a term that should be used as synonymous with predisposition; it is an individual peculiarity which renders one susceptible to certain effects not produced in others. In this way many persons are more or less susceptible to ill effects from certain foods. Strawberries, shell-fish and oat meal may cause an outbreak of urticaria. The dermatoses induced by the ingestion of certain drugs, are due to their specific action upon the peripheral nerves and nerve centers in those who are predisposed. I have reported a number of such cases. A particularly interesting one, and I believe the only case of the kind ever reported, was that of a bulbous eruption due to the administration of iodide of ammonium.* The vulnerability of the skin in psoriatic patients has been ingeniously shown by Kœbner. He produced typical plaques of the disease in any form desired, by artifical irritation of the integument. Climate, soil and temperature are responsible for certain diseases. Prurigo is common in Austria; very rare in this country. According to Dr. White, the parasitic diseases of the skin are more frequent in this country than in Europe. Psoriasis is said to be very uncommon in the negro race. Keloid is much more common in the negro. The negro is not as susceptible as the white to other skin diseases. The state of the general health, and diseases of certain organs play a most important part in the causation and continuance of cutaneous maladies.

The exciting causes of the great majority of skin diseases result from man's environment. The temperature, seasons, occupations, chemical and mechanical irritants, parasites vegetable and animal, bacteria, nervous influences and constitutional conditions. According to the inherent tendency of the skin, heat and light will produce freckels or tan. Though a temperature above 100° will produce erythema and that of 212° all grades of inflammation men have been known to stand without inconvenience dry heat of 350°; the oven used by Chabert during his exhibitions in London was, according to Sir Erasmus Wilson, heated to between 400 and 600°.

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*Journal of Cutaneous and Genito-Urinary Diseases, May, 1888.

Occupation is frequently the exciting cause of dermatoses; the tailor is affected by the dye in the clothing he handles; the use of his scissors and irons produce typical callosities. Professor Hebra, in his clinics, frequently called attention to the fact that we could many times discover the employment of the person from the callosities and could at the same time judge, from the extent of other conditions of the callosity, whether the person had worked industriously or not. Mechanical and chemical irritants are to be considered in this connection, friction from the clothing may produce pruritus, or a transient erythema; the pressure from ill fitting shoes cause soft and hard corns; varicose veins of the lower extremities may result from tight garters.

Dr. White mentions more than sixty plants in the United States that may cause inflammations of the skin, the best known of these are the rhus toxicodendron (poison ivy), rhus venenata (poison sumac) and rhus diversiloba (poison oak). I have called attention to several severe cases of eruptions due to the external use of ichthyol. It must be remembered that there is a peculiar susceptibility of the skin in all of these cases that causes it to be affected by irritants. Some individuals can even rub the poison plant on the face without being affected.

I believe that eczema can never be produced unless there is a predisposition, either inherited or acquired, not necessarily of internal origin but in some cases simply an idioscyncrasy of the integument itself. Some skins are easily affected by irritants and if prolonged or sufficiently often repeated, the skin's power of resistance is weakened (acquired predisposition), and eczema is developed; in other cases no amount of irritation will produce a like result. Nerve influences are responsible for a certain number of cutaneous diseases, herpes, pruritus, dermatalgia, zoster and probably some cases of alopecia areata.

The American Dermatological Association recognize ninety-six distinct diseases of the skin, about one-fourth of these are thought to be due to micro-organisms. According to Unna all skin diseases should be regarded as parasitic, when there is no other well defined etiological factor. He places several skin diseases, which we are accustomed to regard as symptomatic, as due to bacteria: acute psoriasis and some forms of eczema. In this country the parasitic theory is not so generally recognized. There are a certain number that are unquestionably caused by bacteria; among others lupus vulgaris, verruca necrogenica, malignant pustule, scrofula, syphilis and leprosy. Contrary to the general idea, comparatively few cases of cutaneous diseases are contagious, not more than twelve or fifteen per cent: the better known are the tineæ, the animal parasitic diseases, the syphilodermta, the different manifestations of cutaneous tuberculosis, leprosy, which is really less contagious than either of these; impetigo contagiosa, seborrheal eczema and possibly molluscum epitheliale. It is still a debated question as to the contagiousness of alopecia areata, alopecia, furfuracia and verruca; malignant pustule and the vegetable parasitic diseases may be conveyed from lower animals. Dermatitis venenata is not of itself contagious, but the poison that produces the disease may still be in contact with the part before it is cleaned and so produce other cases. Theoretically we all agree that some method should be devised by which we may lessen the danger of contagion. Prostitution should be under government control. We may do much towards lessening the danger of infection by calling public attention to the danger of contamination. It is a well recognized fact that venereal diseases may and often are conveyed to the innocent through cups at drinking fountains, water closet seats, bed clothing in hotels and sleeping cars. Barber shops are a most prolific source from which all forms of contagious diseases are propagated.

Parents should be warned of the danger of allowing their children to be embraced and kissed by every stranger that may be so inclined; a child should never be kissed on the lips. Some years ago I saw a man at the post graduate school in New York who had a chancre on the lip; he had conveyed the disease to his wife by kissing, and from the initial lesion on her lip she had contaminated her child, who had a chancre on the tonsil. Eruptive fevers and vegetable parasitic diseases may be conveyed to human beings from domestic animals; I have seen a child affected with favus, who contracted it from a cat who in turn probably derived it from mice.

The opinion has been expressed that the etiology of skin diseases is obscure and the treatment is of necessity many times at fault, but is this alone true of cutaneous maladies, is it not equally applicable to other diseases? Rheumatism follows defective processes of elimination, producing lactic acid, it may be due to the nerve centers being primarily affected by cold, and the local lesions are really trophic in character, or as still others consider, arthritis is due to micro-organisms. Gout, due to excess of uric acid in the blood, may be hereditary. According to Duckworth the condition is brought about by neurosis of the nerve centers. Bronchitis is usually the result of "catching cold", but according to Osler is probably microbic in origin. Croupous pneumonia may or may not be caused by micro-organisms.

DISCUSSION.

Dr. W. W. Johnston said: In treating of the etiology of skin diseases Dr. McGuire had covered almost the whole range of medicine. The general constitutional condition was closely connected with the diseases of the skin, though this doctrine was not endorsed by all dermatologists. There was a very close association between diseases of the skin and the uric acid diathesis, and there was no doubt that the skin was prone to such diseases as urticaria as a manifestation of this diathesis. It was a most interesting relation; he had seen cases of urticaria extending over years, due to this cause. The treatment was a carefully regulated diet; sometimes it would even be necessary for a time to resort to an exclusive milk diet. He had had under treatment lately a lady with one of the worst forms of urticaria he had ever seen. The pressure of her dress or corsets, or the touch of the finger, would be sufficient to bring out the eruption at the points of pressure. She had persistent uric acid in the urine; she was treated by limiting the diet, and finally was put on a milk diet exclusively, when the urticaria disappeared. He also referred to the coincidence of chronic eczema with constitutional disease.

Dr. S. S. Adams said: He agreed with Dr. Johnston's views on urticaria, at least so far as children were concerned, and he believed that heredity played a very small part in its causation. Urticaria was generally due to errors in diet. The diet should be corrected, for the child would not improve until its food had been changed. And in speaking of food he referred particularly to mercantile articles of food, and more particularly to condensed milk. Most cases of urticaria now occurring in children were due to condensed milk. As regards impetigo contagiosa, he had just had removed from the hospital several cases occurring in the children in one family. In another case the mother had it on her face, and the nurse also had it. He had seen more cases of it in recent years (or at least he had made the diagnosis of it more frequently) than ever before.

Dr. W. P. Carr said: There could be little doubt that many skin diseases bore some relation to general nutrition. He drew an analogy between the causes of catarrh and dermatitis. Catarrh was usually due to a lack of nutrition, while eczema on the contrary, was more often found in plethoric subjects. Catarrh was due to a lack of nutrition in children, and this produced a condition of the system in which the cells were not active. Germs gained entrance and produced catarrh, furunculosis and scurvy; the skin becoming involved from a lack of resistance.

Dr. McGuire said: If Dr. Johnston referred to skin diseases, particularly eczema, as being caused by gout, rheumatism and other constitutional diseases, and as being only a manifestation by an eruption on the skin of other diseases, he was forced to disagree with him. Advocates of the theory of a close relation between skin diseases and the general constitution lost sight of the fact that the skin was an organ, and just as liable to its peculiar diseases as any other organ in the body. If the liver or kidney, or any other internal organ, was the seat of disease we did not search around among other organs for the cause, but when the skin was affected physicians were not satisfied until they found some other cause for it. If a patient had eczema they must search for a constitutional cause for it. If those who thought it was caused by gout would search the records they would find that there were no more cases occurring in gouty patients than in any others. In reply to Dr. Adams he said that he had not stated in his paper that impetigo contagiosa was a rare disease, but he would say it was rare in his experience. He had been practicing in Washington eight years as a dermatologist, and in that time he had seen only a few cases. The cases Dr. Adams saw were undoubtedly transmitted from one to the other.

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CHAS. H. STOWELL, M. D. EDITOR.

THE EDITOR'S TABLE.

New Treatment for Consumption. A physician of Chicago has recently written an article to *The Journal* in which he gives his personal experience with his new treatment for consumption. The author first discusses the public institutions for consumptives and shows how little value they are so curative agents. Private institutions are much better but they can only be patronized by those who are financially fortunate. If consumptive cases are dangerous to the inmates of general hospitals how can we expect then to recover when they are collected together between four walls? Will they not rather be a constant source of danger to each other? While the author of the article was a member of a consumptive colony he thought over these subjects and came to the conclusion that outdoor life of some kind was the best plan after all. There are thousands of ranches throughout the arid west that will furnish a comfortable home to an invalid, with lodging and board at a nominal rate. There should be but one invalid at each ranch. Another method which he offers is that of camping. A party of four to eight invalids could be formed under the supervision of a physician. The company should employ a cook and drivers and leave the towns and cities to lead a nomadic life under canvas. There would be the diversions of hunting and fishing and the change of scenery would relieve the mind of any morbid tendency. Such a life would stimulate the appetite and in reasonable cases would lead to an improvement in all the symptoms. The author of the article says he rented a common farm-wagon and team and made an extensive trip through Western New Mexico. He slept on the ground at night, prepared his own meals, and moved his little sanitarium daily, sleeping every night on sterilized ground. Such a life promptly restored him to health and he believes it would have the same effect upon others.

What have we to offer our patients afflicted with this terrible disease? An article in a late number of the *Medical Record* reviews the whole question of the creosote treatment, but this is not highly encouraging. The author quotes the investigations of Dr. Penrose of the Soldier's Home of this city to the effect that while "no cases were absolutely cured" many were improved by the use of this drug. A number of the writers quoted hold that the good effects from the creosote are largely due to an improvement of the general bodily nutrition rather than to any anti-tubercular effect. Some of the authorities believe that creosote has a specific action, one investigator reporting twenty-seven per cent of recoveries in 5,000 cases. The paper concludes by saying that creosote is a remedy which is capable of arresting a certain per cent of cases of consumption and should therefore be administered in all cases of that disease, provided it is well tolerated. Yet, after the exhaustive study given us in this paper the conclusion is forced upon one that we have as yet no reliable remedy which has anti-tubercular power. Therefore, we are inclined to look with favor upon the out-door plan of treatment, which is not, by the way, altogether new.

Timely Articles.

We have no criticism to make whatever on the articles which have been read before our medical society. But in conversation with a number of the younger physicians especially, who have not made it a practice to attend the meetings of the society, we have received one quite general reply to our question why they were not more regular in their attendance. It was to the effect that the papers they hear do not do them any practical good as young physicians; therefore, they preferred to attend their own societies where practical subjects were discussed at each meeting. As the question is always to give the greatest good to the greatest number the thought occurs would not it be well to have papers at the proper season of the year on such practical subjects as the treatment of consumption, pneumonia, ordinary colds and coughs, scarlet fever, typhoid fever, the various stomach and bowel affections of infants and children, etc., etc. A paper at just this season of the year on the stomach and bowel affections of early life, discussed by the older members of the society, we believe would bring out scores of the younger members who are anxious for all the light on these every day cases.

Spitting in Public a Nuisance.

It is within the memory of most of us when the great majority of Americans illustrated the tobacco-chewing habit to a perfect degree. Immense cuspidors formed a necessary part of the furniture of all hotels, ferry boats, depots and other public places. But now the habit has very generally disappeared and if anyone still is fond of this method of using tobacco, he certainly omits the skilled ejection of the tobacco juice from the mouth which formed such a prominent feat of the former generation. The medical profession has had nothing to do with this change of things; we must give the entire credit of it to the war which the women have so relentlessly waged against it.

But we have another spitting nuisance which is something more than offensive and disgusting, for it carries with it the danger of spreading one of the most terrible of diseases. We are not sure that the enactment of laws will bring about a reform in the practice of spitting upon the floor in public places and upon the side walks, but it will agitate the subject and if this be continued with sufficient force we believe another generation will see the present spitting nuisance as completely removed as we now see ourselves freed from the bondage of the tobacco chewing habit.

One of the first cities in this country to pass laws against using the street cars and sidewalks as public cuspidors, was Ashville, N. C. The following regulation is now in force:

Be it ordered by the Board of Aldermen, of the city of Asheville,

Sec. 1. That all owners, proprietors and persons in charge of any hotel corridors, hotel offices, public halls, banks, in the city of Asheville, and the custodians and keepers of all public buildings, public offices and court houses, in said city, be, and they are hereby required to furnish said hotel corridors, hotel offices, public halls, banks, public buildings, public offices and court houses, with cuspidors, sufficient in number and so located, as to be conveniently used by persons occupying, frequenting or using such places, and said persons are required to have same cleansed daily with some disenfecting fluid prescribed and approved by the board of health of said city.

SEC. 2. That it shall be the duty of the members of the board of health, policemen of said city, to visit from time to time, the places and buildings referred to in section one of this ordinance, for the purpose of seeing that the same is complied with, and any person violating said section one of the ordinance, shall upon conviction be fined one dollar.

SEC. 3. That it shall be unlawful for any person to willfully expectorate, or spit upon the floor or steps, or other walk-way, or approach of any hotel corridor, hotel office, public hall, bank, public building, public office, court house, any side walk in the city of Asheville, and any person violating this ordinance shall upon conviction be fined one dollar.

Our Offer not Accepted. Referring to our editorial in the last number of this journal with respect to the teachings of the Daily Medical Journal (*The Post*) of this city, we would state that we sent a communication to said journal, offering to give $100 to the Children's Hospital of this city if the editor could bring forward one single authority who would verify his statements on the alcohol question, with the understanding that if this authority could not be found, then he should pay a like sum to the Children's Hospital. The question of what should constitute an authority could be left to three men, chosen in the usual way. But said daily medical journal refused to accept or publish our communication and the Children's Hospital is out thereby a little present which we felt sure would come to it.

The New Hospital. We are glad to note the good prospect which the medical department of the Georgetown University has for a first class hospital. It is an additional pleasure to note that this hospital will probably be located in the western part of the city, where such an institution is greatly needed. This will not only supply a great need to a large section of the city, but it will also be of immense value to the Georgetown college. With a new hospital, well equipped in every way, this well-known and well-established college is bound to take rapid strides in the right direction.

Free Dispensaries. The subject of free dispensaries has been pretty freely discussed in medical circles of this city and yet there are many reasons why the discussion should not cease. The most stupendous evils we are told still exist and it seems quite impossible for them to be entirely eradicated. The *Mail and Express* of New York city has been investigating the dispensary business of that city and it made the discovery that the president of one of the largest municipal railroad corporations was a regular attendant at one of the city dispensaries. This paper also discovered that a free patient at one of the hospitals was the owner of three magnificent houses on Third Avenue. Facts in our possession lead us to conclude that if some of the papers in this city should take this subject up they would have equally as interesting reading.

More Injuries from Roentgen Rays. Some eminent authorities have declared that the danger of causing severe injuries to the skin from the use of the X rays is so great that they should not be carelessly or unnecessarily employed. Now comes the news from the John Hopkins Hospital that the superficial effects are not the only ones to be feared. After using the X rays on a male patient, the Associate of Dermatology at the hospital says his patient suffered severe pain with the swelling of the back of the hand, together with inflammation of the hand and fingers. The bones of the hand became tender on pressure and the hand was practically useless for some weeks. The photographs showed that the rays had caused distinct osteoplastic periostitis. It is now believed that the pain which other observers have noticed to follow the use of these rays is due to the inflammation of the periosteum and possibly the bone tissue itself. The conclusion is that operators who have any special idiosyncracy should abstain from the use of these rays, although the chances of injury to patients are so slight that it should not deter one from the use of these wonderful rays in surgical work. Another conclusion could certainly be reached, that the X rays are more powerful than have been generally thought and that it would not be at all strange to find that they have some therapeutical power.

Photographs of Authors.

Some of our exchanges are making quite a specialty of publishing the photograph of each author with his communication. Some of these authors have been known to us through their writings for many years and we regret exceedingly that they have consented to this new departure of things. A young acquaintance of ours once operated on an old gentleman for double cataract. When sight had been restored, out of the thankfulness of his heart, our aged friend called for the surgeon who had given him back his sight. Upon looking at the countenance (anything but prepossessing), which appeared before him he exclaimed: "Lucky for you, young man, I did not see you before you operated or I would never have given my consent!" We are bound to exclaim, in some of these recent cases, that our opinion of the value of some of these contributions has greatly changed since we have gazed upon the oil-soaked hair, the waxed mustache and the sickening smile which too plainly says, "Don't you think I'm sweet?"

In the Title You Know.

One of our most valued exchanges in a recent number publishes a good article on a very important subject, but somehow we feel less inclined to accept the teachings of the writer because we are so unfavorable impressed before the subject matter proper is reached. In the first place there are four titles following his name which require fifteen letters simply for the abbreviations. Then there are five lines in small type which set forth various professorships and hospital connections of the author.

The Close of the First Year.

With this number we close the sixth year of our existence and the first year of the publication of the Transactions of the Medical Society of the District of Columbia. During the year there have been published nearly 250 pages of transactions, an amount equivalent to nearly 500 pages of ordinary book matter. One hundred and fifty volumes of the Transactions, separated from all references to this Journal, have been separately bound with a full index. The disposal of these copies will be duly announced at a near meeting of the Society.

The Medical Society of the District of Columbia is responsible only for the "Transactions" published in this journal. It is entirely free from any connection with the Editorial and Business management.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

EDITING COMMITTEE:

W. W. JOHNSTON, M.D., GEO. M. KOBER, M.D., JAS. D. MORGAN, M.D.

MEETING OF DECEMBER 2, 1896.

Dr. S. C. Busey, President, in the Chair.

MULTIPLE ABSCESS OF THE LIVER AND OF THE MESENTERY.

Dr. D. S. Lamb presented a specimen with the following history:

The patient was a mulatto woman, forty-eight years of age, who had been sick about two months and died two days after admission to the hospital. Her most marked symptoms while in the hospital were delirium and abdominal tympanites; temperature ranged between 100 and 102°. The necropsy showed a circumscribed abscess filled with greenish pus, located above and to the right of the umbilicus; it was bounded by the greater omentum, intestines and anterior abdominal wall; in some way which I was unable to determine this abscess communicated with another in the apical portion of the vermiform appendix; the appendix was bent on itself about midway of its tract and in the distal end was greenish pus. The mesentery was full of abscesses containing whitish pus. The liver throughout was as described in the specimen. Some adhesions around the circumscribed abscess were old and the color of the abscess contents was greenish; this therefore was chronic, as was also that in the appendix, the contents of which were also greenish pus. Those in the mesentery were apparently more recent but of course, secondary to that in the appendix. Throughout the remainder of the abdomen were recent adhesions, lymph and straw-colored serum. Peyer's patches of the lower ileum showed deep pigmentation suggesting a prior typhoid fever. Whether this fever had to do with the vermiform abscess is an interesting question. The lungs were generally œdematous.

I would suggest the possibility of the following sequence of events in this case. Beginning with a typhoid fever from which she convalesced and recovered; perhaps leaving an appendicitis which became a chronic abscess; in some way not determined this abscess caused the intraperitoneal abscess higher up, and also the multiple abscesses in the mesentery; these of course through the superior mesenteric vein; thence from the mesentery through the portal tributaries to the liver, pilephlebitis and multiple hepatic abscesses.

ABDOMINAL PREGNANCY.

Dr. J. Wesley Bovee reported a case of abdominal pregnancy and presented the fœtus, placenta and sac.

The fœtus weighed four pounds and the sac with the placenta two and a half pounds. The patient was about thirty years old and had never before been pregnant, though married eight years. She had menstruated December 15, 1895; had rupture of the sac (evidenced by colicky abdominal pains) during the month of January 1896, and false labor in September. At this latter time she had the second show of blood from the vagina since December and it lasted six weeks, during which period she passed fleshy masses from the uterus, accompanied with severe pain. In May she first noticed a tumor in the lower part of the abdomen which increased in size. Up to September there had been fœtal movements. Milk had flowed freely from the breasts in September and was yet present in the left breast, November 18, 1896. At this time she had quite a large abdominal fluctuating and irregular tumor. The right side contained fluid and the left was more solid. Abdominal pregnancy was diagnosed; the urine contained a small amount of albumen and some hyaline casts.

The operation showed it to be a case of abdominal pregnancy. though not intraperitoneal, with the placenta attached low and to the left side of the pelvis. The fœtus was delivered by the feet and the sac enucleated; slight hemorrhage occurred and after carefully washing out the pelvic cavity with hot salt solution the abdomen was closed.

DISCUSSION.

Dr. H. D. Fry, in discussing Dr. Bovee's case, said that the history of this case was typical of tubal pregnancy rupturing into the broad ligament. He had the pleasure of seeing Dr. Bovee remove the specimen, and the only criticism he would make was to say that he had been surprised that the doctor attempted to remove the sac, for this certainly added very much to the danger of the operation. He thought it would have been wiser not to have attempted the enucleation of the sac, but to have removed the placenta, cut away as much of the sac as possible and sewed up the remainder.

Dr. J. W. Bovee replied: That the attachment of the placenta was inside the sac, and all over the outer side were adhesions which he did not know how he could tie without getting out the sac, besides he would much rather have such a sac outside of the abdomen than in it, for it would furnish a dangerous focus for infection if left.

Dr. I. S. Stone said: He thought the doctor would probably find more difficulty in removing the sac prior to the ninth month, and he wished to know how he would treat the sac in such cases.

Dr. Bovee replied that at that time he would expect to find a larger blood supply since the placenta circulation would be probably normal—if the child was living. He thought he would probably stitch the placenta to the abdominal wall and pack gauze around the placenta.

THE SURGICAL TREATMENT OF POSTERIOR UTERINE DISPLACEMENTS.

By I. S. Stone, M. D.

After many years of experience in the treatment of uterine displacements, we still find quite a number of cases incurable by mechanical support intended to hold the uterus in the normal position. Pessaries are not so frequently used as in the earlier days of gynecology. Two causes contribute to this result. The treatment of displacements by vaginal supports often fails, or at best gives only temporary relief, while surgical results are becoming constantly better, and afford almost absolutely perfect results. The question may well be considered by those who believe that perfect success may be almost uniformly obtained by surgical means, whether it is good advice to urge a continuance of local treatment, including pessary wearing, when the patient is not relieved after a fair trial of these expedients.

Generally speaking, a dislocated uterus gives rise to symptoms. There are some exceptions, however, to this rule. Some women appear to have no symptoms or pain, with a retroflexed and very adherent uterus. Others may have a severe case of prolapse of the uterus, with no distress or pain, but are merely inconvenienced. We return to the statement that women generally do suffer from dislocations of the uterus. They may not have local pain or any of the pressure symptoms, but may instead have reflex and often very distressing symptoms, which are only relieved by the restoration of the uterus to the normal position. Thus we see neuralgias, headaches, gastralgia, nausea and vomiting, due to the cause above mentioned. We have seen the most distressing pruitus ani of ten years standing, promptly relieved by the restoration of a retroverted uterus. We have seen recently quite a number of patients with rectal pain, who have undergone numerous operations for fissures, hemorrhoids, ulcers, etc., due to an undiscovered retroversion, with adhesions to the rectum. These cases are opposed to any further surgery, with good reason, but it is always best to correct such a displacement at any cost, even if the abdomen must be opened to accomplish that end.

The writer believes that cases of retrodisplaced uteri are seldom or never cured by a resort to pessaries, if the cases are of long standing. Some acute cases, as for instance those we occasionally see after an accident, may be restored by timely treatment: but those coming to our notice with over-stretched ligaments, and especially those having adhesions to viscera, are rarely if ever permanently cured, so that the patient can lay aside her pessary.

A pessary is a makeshift, a crutch, a temporary expedient, the lesser of two evils. It means a distended vagina, a substitution of one form of pressure for another, and not the least of its evil effects is its office of filth collector. It is impossible to use any kind of pessary without occasionally removing it in order to cleanse it, and thus every woman wearing one is a regular visitor at her physicians office. She is obliged to submit to repeated examinations, and almost endless annoyance and inspection while she wears a pessary, yet in spite of the many disadvantages we must needs use them occasionally.

Given then a patient who has a retrodisplaced uterus, who has either become tired of wearing a pessary, or who can not be relieved by one, we may consider some form of surgical treatment. The writer thus omits purposely all other so-called methods of cure, such as electricity, massage, etc.

There are a certain number of cases of adherent uteri to be relieved by forcible separation of adhesions under anæsthesia (see Schultz). As there is always a doubt as to the cause of infection, or at least there is a doubt as to the cause of the adhesions, one must carefully exclude infectious disease of the pelvic organs before attempting so radical a measure. The writer has frequently tried this method, and on more than one occasion immediately opened the abdomen and witnessed the result. The uterus can be liberated from adhesions which envelop its entire anterior, superior and posterior surfaces. The broad ligaments nay be unfolded, which will often liberate imprisoned tubes and ovaries. If great force is used the bowel may be torn, and the writer always fears this accident, and can not recommend the procedure for general adoption. One must be prepared to open the abdomen who uses great force. When such adhesions are broken up by force, we may be obliged to repeat the operation as union may occur.

Various operations have been tried looking toward a relief of these displacements with varied success. As is well known to all, these operations must either influence the body of the uterus or the ligaments which furnish its support. Thus we have Alexander's operation upon the round ligaments, generally without opening the peritoneal cavity. Polk and numerous others shorten the same ligaments within the abdomen through either a vaginal or abdominal incision. The utero-sacral ligaments come in for their share of attention also, and we find surgeons shortening them through an incision in the cul de sac of Douglas. The ligaments last mentioned must be elongated when the cervix comes downwards and forwards, and if they are made short it is claimed that the fundus uteri can not get back into the hollow of the sacrum.*

In the method known as vaginal fixation the abdomen is reached through an opening between the bladder and the uterus. The vagina itself is sutured to the uterus at a point on its anterior surface, high enough to hold the fundus forward. This must be above the flexure, if in a case of retroflexion, and in a large heavy retroverted uterus it would necessarily be well up about the junction of the middle and upper third of the anterior surface. The operation was probably a step in advance when originated by Martin and his pupils, but it is deservedly falling into oblivion, as there are but few, if any indications met by it, which are not satisfactorily obtained by other methods, moreover it fails to elevate the uterus. It is now possible to obtain sufficient support for the uterus without real fixation, or it is better to say that the retroverted uterus can now be restored to its natural position with motion in all directions, except downwards and backwards.

The method about to be described has been developed and perfected by Dr. H. A. Kelly, and while the writer differs in his technique from that of this versatile and otherwise gifted surgeon, he acknowledges his indebtedness to him for the principles involved in the operation.

The suspension of the uterus by Dr. Kelly's method, is secured by passing two or three sutures first through the peritoneum and subperitoneal structures on one side of the incision, avoiding the firm fascia of the transversalis muscle, and then through the wall of the uterus posterior to the fundus, and out on the opposite side in a similar manner. The result of the operation is at first to attach the uterus closely to the peritoneum and abdominal parietes, but almost immediately the peritoneum yields to the weight of the uterus and exrra abdominal pressure, and a suspensory band of peritoneum from the parietes, and fibrous tissue and peritoneum from the uterus, form a fibro serous or artificial suspensory ligament of the uterus, which varies from two to more inches in length. We recommend the formation of this ligament at a point anterior to the fundus in all cases where pregnancy is a probability. The attachment posterior to the fundus crowds the fundus forwards upon the bladder, and limits the expansion of the anterior wall in pregnancy.

Objections have been raised to this operation by Dr. Emmet and others that it raises the uterus too high, that it is still out of place. In answer to this we can at least show that in any case we obtain results far better than from any other treatment. A very large uterus, which is congested and so heavy as to suggest fibroid degeneration, will rapidly undergo reduction in size. Dr. Emmet says he knows that the round ligaments when shortened depress the cervix (and uterus also), because he on one occasion, while Dr. Alexander was operating, could feel with a finger in the vagina, the uterus descend in the pelvis. However this may be with Alexander's operation, or vagina-fixation, it does not constitute an objection in the operation under discussion. Other surgeons offer objections which are directed against fixation rather than suspension. All of the cases of dystocia have been in fixation operations. It has been urged by some that abortions frequently occur as a result of ventro suspension or fixation. It seems quite unnecessary to mention this, and still less to reply to it, for the obvious reason that many of these women are sterile with the uterus in the former position, and taking it for granted that the accusation is merited, we know that very many more children will be born safely at term with the operation than without it. One writer suggests that a case of hyper-emesis gravidorum resulted from a ventro fixation. The case must be exceptional, and until others are reported we have no reason to be influenced in our favorable opinion. (See Journal p. 544.)

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*Note: Keith's clamping the broad ligament.

A description of the Alexander operation will not be given, and we merely refer to the fact that there is a place for the operation, and I think an important one. In women who have uteri in posterior displacement, but which can be replaced with difficulty, yet which have no adhesions which can be discovered, and especially if they demand some relief outside of pessary treatment, this operation may be tried. There are certain unknown quantities involved in the operation, however, which we should carefully consider before a decision is reached. No surgeon can say before the operation is begun that he will either find the round ligaments strong enough to hold the uterus, or that, if they appear strong enough, the uterus may not gradually settle back in its old place. Again a certain proportion of herniæ have resulted even when there is no wound infection. The writer finds in a majority of cases of retrodisplacement, about which he is consulted, that some peritoneal inflammation has long existed. These cases generally require that the abdomen be opened to break up adhesions, which in no other way can so safely be separated. When the patient requires an anæsthetic to do this, she generally consents to what ever is necessary to accomplish the cure, which has previously been impossible. The abdomen once opened, the necessary surgery done, it is folly to let the uterus drop back amid raw surfaces which must reunite, and almost surely bring a return of the former symptoms. Therefore it has become the rule for some, myself among the number, not to trust any but the best and surest means of preventing the return of the displacement, by the operation known as ventro suspension of the uterus. We do not always remove adherent ovaries and tubes as some may suppose, but the tendency now is strongly in favor of liberating prolapsed and adherent Fallopian tubes and ovaries, and securing them in a better and safer position. In many cases, indeed in nearly all cases where the writer removes the adnexa of both sides for purulent salpingitis and ovaries, he sutures the uterus to the abdominal wall, whether it was formerly retrodisplaced or not. It is usually ready to drop down in the pelvis and become adherent to everything with which it comes in contact.

The writer has had no case of obstruction of the bowels, or even any suggestion of such a result, after any operation of this kind, and is convinced that the former method of treating the uterus was responsible for much of the trouble in obtaining free catharsis after laparotomy.

Some women with these displacements may have melancholia, and we may be led to believe that some surgical operation may cure their mental condition, as well as their physical suffering. It is not best to invariably deny these poor women the benefit of surgery, but it is important to exhaust every other resource, and the best counsel should be obtained before resorting to a procedure which might involve the operator in some form of legal tangle, or at least subject him to great annoyance and adverse criticism.

Of the value of hysterorrhophy or ventro fixation or suspension, we can not furnish satisfactory statistical information. Nearly all operators have testified to the very great value of some one of these procedures. Time enough has elapsed to show that in a vast majority of instanses the patients are permanently relieved. Quite a number of reporters mention cases of difficult labor after fixation of the uterus; transverse positions, breech presentations, and dystocia due to a retraction of the posterior uterine wall and elevation of the cervix. As mentioned previously, Dr. Noble of Philadelphia, has done one Porro operation in such a case.* Therefore we agree with those who altogether avoid any real fixation of the uterus.

Olshausen says, (*z. f. Geb. Med. Gyn. Bd.* XXX.): Treatment by pessaries can not be avoided, but is falling into the back-ground. He does not believe in massage. His experience is satisfactory so far with ventro fixation. Czempin operates without opening the peritoneum.

Fraipont, *Ann. de la Soc. Med. et Chi. de Liege*, 1894, reports several cases delivered safely after hysterorrhophy. He thinks the uterine adhesions separate during pregnancy, but that the uterus remains in position after delivery. Keith, in the *Lancet*, Vol. 2, p. 679, 1894, tells of fixation by clamping the broad ligament.

So far as the personal experience of the writer goes, he has had reports of three normal deliveries after ventro fixation. Two of these were reported by Dr. Noble in his paper before the American Gynecological Society, May, 1896. Since that one other has been added to the list. Dr. Fry of this city, has also had one normal case. Dr. Kelly has had twelve, in which pregnancy occurred with seven labors (normal); one miscarriage after violent exercise (dancing), and the remaining four went to fourth and fifth month.

Many foreign operators add their testimony to that of Dr. Kelly and others in this country, in favor of ventro fixation, or suspension, but the purpose of this paper is not to make up a compilation of statistics, but merely to add my own testimony to that of other operators who are striving after perfect results in the relief of a very prevalent form of pelvic disease.

DISCUSSION.

Dr. Carr, being called upon to open the discussion, said: The article on this subject by Dr. Howard A. Kelly, which had just come out in the *Journal of the Medical Sciences*, and to which Dr. Stone had referred, was quite an elaborate article. It was interestihg to compare his results with Dr. Stone's. Dr. Kelly had eight methods of treating retroversions. The first was no treatment at all, for it dealt with cases in which there were no subjective symptoms of retroversions and called for no treatment. A great many such cases were discovered quite accidently, and required no treatment. His second method was by the use of pessaries, and he had made the statement that he did not expect to cure his patients by this treatment, but only to relieve their symptoms. Yet he acknowledged using pessaries to a considerable extent, principally the ring pessary and the Hodge pessary. He was also opposed to the use of a pessary which distended the vagina. All pessaries were bad, and likely to accumulate foul vaginal discharges, as Dr. Stone had remarked. There are a few cases in which they are the best treatment, but he thought that nearly all cases of retroversion could be relieved by manual replacement or tampons, and that pessaries were finding a much smaller field of usefulness than formerly. In cases of women who had some serious constitutional disease, or were too old or feeble to undergo an operation pessaries might still be advantageously employed, but in view of the satisfactory results obtained from operation he thought that almost every woman would prefer some operation to the wearing of a pessary. Kelly's third method was by means of manual reposition of the retroverted uterus and its retention in place by means of tampons. Dr. Carr had been much gratified by his successes in treating retroversions in this way.

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*The American Gynecological and Obstetrical Journal. Read Noble p. 550.

This kind of treatment certainly took a much longer time for its completion than the others mentioned, for in some cases several months would have to elapse before the symptoms were entirely relieved. The fourth method of Dr. Kelly was by a restoration of the pelvic floor when the retroversion was due to laceration of this structure. The fifth method was the vaginal fixation method, especially by the plan advocated by Pryor. The object being to form a mass of adhesions that would draw the cervix backward, thus throwing the fundus forward. Kelly speaks favorably of this method, but does not use it himself. He speaks favorably of its use after the climacteric, for if the woman become pregnant after having undergone a vaginal fixation there was danger of an irregular expansion of the uterus. The sixth method, Alexander's method, was very unsatisfactory, for the round ligaments were very hard to find in some cases, and even when found and shortened they often failed to hold the uterus in position, for they were a muscular, and not a fibrous substance, and were apt to stretch in time. The seventh method was by suspension, and Kelly reports 219 cases of this operation without a death attributable to the operation. His mention of the fact that no deaths had resulted seemed to indicate that death had followed in some of these cases from causes not connected with the operation. Out of the 219 cases there were fourteen labors, all of which were normal except one which required the use of forceps, but one forceps case out of fourteen labors was hardly a larger proportion than might be expected in normal women. Kelly seemed to be perfectly satisfied with his method of ventral fixation, and advocated vaginal fixation only for women who had passed the climacteric. He reports five or six cases of ventral fixation in which he subsequently removed the uterus or opened the abdomen, and in all cases he found the uterus firmly attached to the abdominal wall by bands which allowed movement in all directions except downward and backward. It did not seem to him that there was any danger that little bands of adhesion like that would hold the uterus down in pregnancy so as to cause difficulty in labor, or cause any serious malposition of the uterus when it became distended by pregnancy. In the one case reported by Dr. Kelly where forceps had to be used suppuration had occurred after the operation, and the uterus was attached firmly to the abdominal wall. The most interesting point in the whole question, to his mind, was, when an operation should be done at all, how these cases should be treated outside of an operation. In his own experience he had never felt the need of an operation. But it was curious how one man might get a run of cases which were mild and yielded readily to treatment, while others got more serious cases requiring operations in almost every instance. Such conditions could not last forever, and he was looking out for the turn in events when it would be his experience that all his cases of retroversion and retroflexion should be of the more difficult kind. He believed that most cases could be treated otherwise than by operation, and that whenever it was possible such cases should be treated without operation, except, of course, the repair of any lacerations of the perineum which might be demanded. But when we did get cases in which an operation was imperative, he thought there was not much doubt that suspension, either by Dr. Stone's or Dr. Kelly's method, was the best treatment. When the uterus was firmly bound down by adhesions, and especially when there was also disease of the tubes and ovaries, an abdominal operation offered the safest method of restoring it to a normal position.

Dr. J. Ford Thompson said: Of all the operations referred to by Dr. Stone there was no one which could be called an operation of choice. The operation of Pryor, did not appear to him to be one demanding much attention, for the cicatricial adhesions following such an operation might produce as much harm as good. Vaginal fixation was a good operation when the woman had passed the climacteric, and admirably answered the purpose of supporting the uterus, but it was likely to lead to troublesome complications should pregnancy occur, and should be reserved only for those cases which had passed the climacteric. The choice of operation, in his opinion, lay between ventral fixation and Alexander's operation of shortening the round ligaments, which appeared to be the proper operation for replacing the uterus in its normal position in those cases in which that organ was not bound down by adhesions. In his opinion Alexander's method was the operation of choice in properly selected cases. The plan of cutting down upon the external ring only was the cause of the failure in the operation, for surgeons had found such difficulty in finding the round ligament by this procedure that they had abandoned the operation. Such a plan was unsatisfactory, but if all operators would adopt the practice of exposing both rings, as in the operation for the radical cure of hernia, little difficulty would be experienced in finding the round ligaments. They could thus be found with perfect ease and drawn up with a blunt instrument. Dr. Thompson said he had been struck by the operation of Abbe of New York, whose results were admirable. It seemed a wonder that, with the operation performed as it usually was, the long round ligament drawn out and handled and sutured to such an extent, should survive at all. The improvement made by Abbe consisted in doing away with this handling of the ligament, but to withdraw it to its full extent and use the ligament itself in suturing up the cavity. The external ring and internal rings being exposed, and the cord found the uterus could be drawn up into proper position by traction on the cord, and maintained in that position by suturing up the cavity with the cord. In the cases reported by Abbe there was not the least sign of failure in any case, but on the contrary the operation was satisfactory in every particular. Dr. Thompson had recently operated on a case for Dr. McArdle. The patient was a young married woman who had been suffering for years, or at least all through her married life, from displacement of the uterus. Dr. McArdle had made out the displacement with difficulty, but he also suspected the presence of pus in the pelvis. At the operation a mass was found filling Douglass's cul-de-sac, and it was necessary to enucleate both ovaries, which formed a solid mass with the uterus and were ragged and diseased. After some manipulation the uterus was finally successfully enucleated from its bed of adhesions and sewed to the abdominal wall. Dr. Stone, in his paper, referred to his techique and Kelly's technique, but there was no difference between them except that one involved the anterior surface of the uterus and the other the posterior surface. In his own case owing to the adhesions, it seemed best to suture the anterior surface of the organ to the abdominal wall, for it seemed impossible to do Kelly's operation. The lower three sutures were passed through from side to side, including the uterine wall, and the wound was closed in the usual way. This patient did badly in one sense, for the wound did not close well, but a subsequent examination showed the cervix uteri to be movable from side to side and in good position, and his belief was that she would be entirely relieved of her distressing symptoms.

Dr. Joseph Taber Johnson said: If more consideration were devoted to the causes of displacement, which after all was the prime question, better results might be anticipated. The principal causes of displacements of the uterus were uterine growths, endometritis, lacerations and subinvolution. Weakened supports of the uterus also permitted displacements. If we would cure subinvolution, endometritis, lacerations and remove all hyperplasia by the use of electricity, douches, iodines, etc., we could dispense with the necessity of operating in many of these cases, Where the cause was found to be adhesions holding the uterus down, a good way of treating them was by the employment of vaginal or pelvic massage, combined with electricity and tampons. When this method was advocated in the Society some time ago in a paper by Dr. Nordhoff, Dr. Johnson had ridiculed the plan, but since then he had used massage and appreciated its value. He had learned that by relieving adhesions through the vagina by this method he could often remove the chief cause of chronic displacements. He employed massage combined with the pessary, putting the patient if necessary in the genu-pectoral position and advising her to assume it every night, and by working at the adhesions in this way he had been enabled to get the uterus back into its normal position and keep it there without an operation. But when an operation became necessary the choice lay between ventral fixation or suspension, and Alexander's operation, according to the circumstances of the case. For instance he would not attempt to draw on the delicate round ligaments when there were dense adhesions, for such cases could only be treated through an opened abdomen. He desired, however, as no one else had done so, to draw attention to the bad results which sometimes followed these operations. Scores of cases had been reported where difficulties had arisen when pregnancy followed ventral fixation. Great difficulties had been encountered in delivering a child from a uterus which had been sewed into a fixed position. Dr. Kelly had tried to prevent absolute fixation and was now suspending the uterus by a suspensory ligament. When we did resort to this operation and, after breaking up the adhesions, and the uterus was fastened in this exaggerated position, we soon cured the condition which brought about the displacement. But it was not necessary to sew the uterus permanently to the abdominal wall. All that was necessary after the adhesions were broken up was to replace the uterus in its proper position and keep it there for a while with stitches aided by a pessary. Fisher, in the last number of the *American Journal of Gynecology* reported a successful method of treating these cases which he had discovered by accident. He had performed ventral fixation and sewed the uterus in position with sutures that went through the abdominal wall, intending them to stay there for two or three weeks, but his assistant took them out by mistake, with the others, much to the discomfiture of Dr. Fisher. To remedy the mistake he inserted a pessary which he found to be sufficient to hold the uterus in place, and some months later when it became necessary to open the abdomen on account of an ovarian abscess he found the uterus in good position, held by a slender suspensory ligament. Dr. Johnson believed that this would be the operation of the future, for the pessary helped to keep the uterus in position long enough for suspensory bands to be formed, and then the fixation sutures being removed the uterus could sink down into a more normal position instead of remaining fixed in this abnormally anteverted position. The chief point, after all which he desired especially to emphasize was that more attention should be devoted to the relief of the causes which led to the production of retrodisplacements, and when this generally was done he believed fewer of these operations would be performed upon women during the child-bearing age.

Dr. Henry D. Fry said: He wanted to speak principally of the effect of ventral fixation upon labor. Dr. Carr had said in his remarks on this paper that tampons would produce a cure of such cases, and that if you relieved the inflammation the woman would be cured. Tampons undoubtedly had a place in the treatment, but it was only a temporary place, and the woman would be relieved of her sufferings for a week or two weeks or a month and then drift out of sight of the physician who would think he had cured her. But if she was a loyal woman and had faith in the physician she would soon return suffering as much as ever. He had once done a ventral fixation on a woman who had undergone treatment with tampons for ten years. But if the uterus could be put into good position and keep there by a pessary that was a step in advance. In the treatment of retroversions produced by subinvolution due to abortions, etc., he had not had any success in curing the displacement by treatment. But if there were any lacerations of the perineum or cervix they should be sewed up, and this would often be sufficient to cure the retroversion. Passing to the consideration of Alexander's operation, he thought that one great objection to it was the liability of subsequent hernia, and this danger was as great as or greater than in opening the abdomen for ventral suspension. Last May he attended the meeting of the American Gynecological Society in New York, where Alexander's operation had a stronger hold than in any other city in the country, and where he was invited to see an operation by one of the prominent surgeons who hoped to make a convert of him. He took twenty minutes in looking for the round ligament on the right side and failed to find it. Finally he gave up the attempt and went over to the left side where he found the ligament after ten minutes search, and then went back to the right side and succeeded in finding it on that side too, but it took half an hour to find the ligaments in this case. And after all, the danger in this operation was just as great as in the abdominal operation. In those cases in which the uterus could not be supported by pessaries Dr. Fry thought it was better to open the abdomen and do a ventral fixation than to try Alexander's operation, for the advantages in favor of ventral fixation were very great. As to whether the sutures should be put in the anterior or posterior surface of the fundus, he thought that the anatomical conditions were better in Kelly's operation, and as a rule he always followed the example of the former and put his sutures in the posterior surface. He thought that one did not get as good an anatomical position when the sutures were put in the anterior surface as when they were placed in the posterior surface. As to the occurrence of pregnancy in cases on whom ventral fixation had been performed, he said that Noble gave a series of 808 cases, fifty-six of whom afterwards became pregnant. This small number of cases showed that the liability of pregnancy was diminished by the operation, but its tendency to produce abortion was not so clearly marked, only ten cases occurring. Of these, one occurred after dancing, while another we believe to have been criminal. Even when performed during pregnancy the operation did not seem to induce abortion, for he had seen a case operated on by Kelly whom he did not know to be pregnant. Dr. Fry had also performed the operation in the third month of pregnancy on account of retroverted and incarcerated uterus, where it is usually advised to empty the uterus. The uterus was brought forward and sutured to the abdominal wall, and at the end of her gestation the woman went back to the Garfield Hospital and had a perfectly normal labor. In the fifty-six cases reported by Noble there were three deaths. One that Noble operated upon by the Porro method, in which the woman was septic before. The anterior uterine wall was much thickened. Another of the deaths could not be attributed to the labor but to heart disease. The third case died of sepsis due to the death of the fetus in utero. There were two cases of retained placenta, but on the whole the dangers of labor following the operation could not be considered great. He could not agree with Dr. Johnson about the uterus being fixed in an unnatural position after ventral suspension. He had recently examined a case on which he had operated last January and he found the uterus suspended in a good position and freely movable in every direction except downwards and backwards.

Dr. Johnson asked what became of the stitches in these cases.

Dr. Fry replied that in a case in which Kelly afterwards opened the abdomen he found the uterus supported by tendonous bands, one of the sutures could be seen at the ventral end and the other had pulled out and was at the uterus end of the band. One suture had given way, but the other held.

Dr. J. Wesley Bovee said: He agreed with Dr. Johnson as to the necessity of looking out for the causes of these troubles, but there were also cases of retro-displacements occurring in women who had never been pregnant. The use of pessaries in dealing with these cases was an important one, but they should be used very carefully. The danger in their use lay in the existance of uterine adhesions, and in many cases it was impossible to find out whether these were present, even with the use of an anæsthetic. These were the cases which caused trouble when pessaries were inserted, and it might be better to use tampons for some time in them until the adhesions had become stretched. In many the adhesions were of such a character that they could not be stretched or absorbed. If we were certain there were no adhesions we were justified in using pessaries, at the same time requiring the patients to take out door exercise; and his favorite exercise, after fitting a pessary, was bicycle riding, which produced general tonicity of all the muscles. We had vaginal fixation and ventral fixation, but there was little difference between them in their results; one was as dangerous as the other, and both had been badly done in the beginning, but the technique had since been improved. In ventral fixation the uterus was fastened to the wall of the abdomen, so that it could not expand uniformly during pregnancy. The shortening of the round ligaments by Alexander's operations was not a good operation, except in certain cases and he thought that by shortening the round ligaments the uterus was brought lower into the pelvis. Alexander's operation was not a safe one, for there might be conditions of the pelvic organs existing which could not be discovered. He had known of adhesions being broken through the vagina under anæsthesia, the abdomen being opened later and the surgeon feeling thankful that he had made the section. In attempting to break up adhesions without opening the abdomen it was impossible to tell what was being ruptured, and in Alexander's operation there was danger of tearing portions of the bowel posteriorly if adhesions exist. He had shortened the round ligaments both through the vagina and the abdomen, breaking up all adhesions wherever found, coupled, whenever necessary, with the insertion of a retroversion pessary. In patients whose general condition was good shortening the round ligaments gave the best results. If ventral attachment were necessary he thought that Kelly's gave better results than the ordinary procedure, for by catching the uterus on its posterior surface the organ was raised to a higher position. Suspension was done by placing the sutures around the round ligaments. So far as the material for the sutures was concerned he thought that silk was more generally used than any other, but that animal sutures were better if they could be made to last long enough. Formalized catgut would last three or four months and kangaroo tendon lasted well. So far as the closing of the wound was concerned, this was usually done by means of buried sutures, and the suture he generally used for this purpose was kangaroo tendon, leaving not a particle showing. With a catgut suture that could be buried we would have the ideal method.

Dr. I. S. Stone, in closing, said: He did not care to prolong the discussion as the ground had been pretty well covered by those who had spoken. He wished to emphasize the fact that in his paper he distinctly referred to the "Surgical treatment of posterior displacements" and that he purposely avoided mention of prophylaxis or the treatment by massage and electricity, etc. He had been associated with the gentlemen who had taken the conservative side of the question, and he could not say who had the greater inclination to operate.

MEETING OF DECEMBER 9, 1896.

Dr. S. C. Busey, President, in the Chair.

Pelvic Sarcoma.

Dr. O. E. Balloch presented a specimen with the following history:

J. M., male, colored, single, twenty years of age, a farmer by occupation; entered Freedman's hospital, August 30, 1896. Family history negative.

In July 1896, he noticed a lump in the lower part of the abdomen. This enlargement was accompanied by pain running from the right loin toward the bladder and he had to strain to pass water. There had been a gradual increase in the growth until he now has the greatest difficulty in defacation and urination. Up to the age of eight years both testicles were in the scrotum. At that time the left testicle receded and has not been down since

Present condition: The patient is emaciated; pulse weak but normal as to frequency; temperature normal; well marked enlargement in the lower left quadrant of the abdomen, where a growth can be outlined apparently about the size of a cocoanut, at the upper and inner margin of which is felt a dense nodule. Growth not painful on pressure but somewhat movable; the mass is dull on percussion. Rectal examination reveals the fact that the lumen of the gut is almost closed by a round mass which presses upon it from the front. With great difficulty a metal catheter, 17 F., was introduced into the bladder and six ounce of normal urine drawn. The obstruction to the passage of the catheter was chiefly in prostatic portion of urethra. The diagnosis was made of malignant growth in the pelvis.

September 4, 1896. The abdomen was opened for exploration; the peritoneum was found very much thickened and traversed by distended veins, many being one-fourth inch in diameter. After getting through this, the tumor was found to be a soft, greyish mass, densely adherent to the bladder, rectum and pelvic walls. It bled easily and profusely at the slightest touch. Part of the tumor was a broken down blood clot due to old hemorrhage. Its origin could not be made out. The case was clearly not one for operation and the abdomen was accordingly closed. The patient died September 19, 1896.

An autopsy by Dr. D. S. Lamb September 20, 1896, revealed the fact that the tumor was densely adherent to the bladder, rectum and abdominal walls and that its removal by operation would have been out of the question. The lumbar glands were much enlarged but there were no secondary deposits in any of the viscera. Microscopic examination showed the tumor to be a round-celled sarcoma.

The point of interest in the specimen is the question of the origin of the growth. Neither at the operation, at the autopsy nor when the specimen was examined afterward could this question be settled definitely. While all the probabilities point to the case as being one of malignant degeneration of a retained testicle, yet there is no certainty about it. The most that can be said is that it is an instance of primary sarcoma in the pelvis and if it be not due to degeneration of a retained testicle it is rather a unique specimen. I may add that the examination of the growth at the Medical Museum did not reveal any evidences of testicle structure anywhere in the mass.

MEETING OF DECEMBER 16, 1896. Dr. J. H. Bryan, Vice President, in the Chair.

THE YEAR 1896:
AN EPOCH IN THE HISTORY OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

ANNUAL ADDRESS OF S. C. BUSEY, M. D., PRESIDENT OF THE SOCIETY.

Gentlemen: The events that have occurred during the year are of such signal and lasting importance as to constitute an epoch in the history of this Society and of the profession in this District. It is, therefore, my duty, as it will be my pleasure, to chronicle and arrange the facts that add such unusual interest to the transactions of a single year, with the hope that they may mark the beginning of a new era in the history of scientific medicine at the capital of the nation.

After years of continuous but unsuccessful efforts, Congress has enacted a aw "to regulate the practice of medicine and surgery, to license physicians and surgeons, and to punish persons violating the provisions thereof in the District of Columbia." Mark the significanee of the words, "to punish persons violating the provisions thereof." The law may not be as full and complete in its protective and prohibitory provisions as some of us would desire, but it offers the profession and community protection from the continuous annual influx of charlatans and mercenary imposters to which this city has become exposed because of proscriptive legislation in forty-seven States and Territories of the country. This beneficent result cannot, however, be immediately accomplished, because the former lax administration of loose regulations has permitted the registration of some eminently qualified in the art of charlatanry and fraud, whose vested rights cannot be alienated by *ex post facto* legislation, but must abide the issue of longevity and the judicious regulation of their unscrupulous and venal methods. I will not trench upon the privileges and prerogatives of the Board of Medical Supervisors by any attempt to interpret or define certain special provisions of the law, but I am confident that a fair, impartial and vigorous execution of such provisions, of which I have no doubt, will so restrict the methods of this objectionable class that we may reasonably hope for satisfactory results.

A second and not less important object of the law seeks the elevation of the standard of scientific education and professional qualification—a standard attainable only by the graduates of the highest grade of medical schools. Nothing less will be satisfactory to the advanced methods of teaching along the lines of scientific and clinical research. Nothing less should satisfy the demand of an intelligent community for the highest skill in preventive and practical medicine, and nothing else will so effectively dimish the prevalence and lessen the pecuniary success of quackery in the management and treatment of disease.

The examination by the Board of Examiners under the supervision of the Board of Supervisors will compel medical colleges to establish a higher standard for graduation. Complete equipment in knowledge, clinical experience, and training of successful applicants for registration will, *ipso facto*, conduce to the greater skill and proficiency of beginners in the practice of medicine. As a natural consequence, practitioners of standing and reputation must keep abreast with the progress of scientific medicine or flag in competition with their more skillful and better educated juniors. Many, perhaps most people, will seek those surgeons and physicians who offer best results with the least suffering. Brilliant success attaches only to phenomenal skill, and the time is, perhaps, not very remote when success will be the measure of qualification and attainments. This law will hasten the coming of such a desirable result.

Controversies will arise and judicial construction will be invoked. The law contemplates important reformations, which can only be accomplished by unremitting and courageous fidelity to the duties and obligations we have voluntarily imposed upon ourselves and our succcessors. We must popularize its mandatory and reformatory provisions by united and active support of the Boards of Examiners and Supervisors in their efforts to administer the trust confided to their judgment and discretion.

It would be out of place here and a fruitless waste of time to narrate to you the embarrassments, perplexities, and meddlesome outside interferences which beset the Committee on Legislation* of this and of the Washington Homeopathic Medical Society, to whose conjoint effort and harmonious co-operation we are indebted for the enactment of the law. Suffice it to say that from the date of the introduction of the bill agreed upon by the two committees, into the two houses of Congress, it was necessary to watch and follow it with intrepid vigilance through every stage of its progress until it was approved by the President. In fact, it practically passed both houses of Congress three times before it reached the final act of approval by the President, and could not be again interpolated through the mistaken zeal of some unknown but sinister instigator. Through the active co-operation and efforts of Senator J. H. Gallinger and the Hon. John W. Babcock, it finally became a law in the form agreed upon by the two houses of Congress. To these distinguished gentlemen this Society is indebted for the enactment of this and other not less important laws.

The "Act to provide for the incorporation and regulation of medical colleges in the District of Columbia," which originated with the Washington Homeopathic Medical Society, was accepted by your committee as a measure adding force to, and promoting, the reforms contemplated by the Medical Practice Act. The necessity and wisdom of its enactment were so apparent that it met with but feeble opposition, which consisted of some vehement declamation in defense of one or more institutions claiming charters under the general incorporation law, one of which was without a habitation, combined all the chairs of an university in the person of one professor, and confessed to two matriculates and one graduate. But, whatever may be the status of the institutions caught in "durance vile," the law will effectively prohibit the future establishment of medical schools without proper and adequate equipment to teach medicine at least according to some one of the systems legally recognized in this District. The law may not be as comprehensive in its requirements as the adherents of the system of scientific medicine to which this Society belongs would formulate, yet it is an important advance in the policy of legal control and regulation of medical schools in this District, and will prevent the multiplication of the class of bogus medical schools which have turned loose upon a credulous public so many ignorant frauds and venal charlatans. It is the beginning of the end of mills that grind out diplomas at so much per square inch of parchment.

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*Committee of the Medical Society of the District of Columbia: Drs. Samuel C. Busey, W. W. Johnston, C. H. A. Kleinschmidt, Z. T. Sowers, George L. Magruder, George W. Cook, J. S. McLain, Charles G. Stone and W. C. Woodward.

Committee of the Washington Homeopathic Medical Society: Drs. J. B. Gregg Custis, W. R. King, J. B. Swormstedt, W. F. Corey and F. A. Gardner.

The third of the series of statutory reforms, entitled "An act relating to the testimony of physicians in the courts of the Districr of Columbia," is not less important than either of the acts previously referred to, and is more distinctly significant of the power and influence of a united profession than either of them. The bill originated with Dr. Z. T. Sowers at whose suggestion I presented it to this Society at the meeting held March 2, 1892, but it was not presented to either house of Congress until December, 1895, and then by Senator Justin S. Morrill in the Senate, and Hon. John W. Babcock in the House. The opposition of the Justices of the Supreme Court of the District of Columbia was so formidable, it seemed for a time, impossible to secure favorable reports from the Committees on the District of Columbia of the houses of Congress, but finally, due mainly to the assiduous and vigilant efforts of several members of your Committee on Legislation, reports were made by both committees with the unanimous recommendation of its passage, which was done without dissent in either branch of Congress. I regret to add that it became a law by constitutional limitation, without the approval of the President.

This law has for its object the extension to the citizens of this District of the liberty of privileged communications and their protection in the enjoyment of the rights of unreserved and confidential confession to physicians, and is similar, in import and effect, to laws in force in twenty States and one Territory of this country, and not unlike, though far less comprehensive, than the law of France. It is not, therefore, a new principle of law, but the extension of a principle, the utility and justice of which seem to be established by twenty and more years of experience in several of the States in which such statutes have been in force.

It adds the force and fiat of law to the decree of the medical profession, which has always and everywhere throughout the civilized world resisted the compulsory disclosure in open court of information "acquired in attending a patient in a professional capacity and which was necessary to enable the physician to act in such capacity." The inviolability of the confidences of the sick-room is the most sacred precept of professional life. It has come to us through the ages past as an unbroken rule of conduct, and all codes of medical ethics have stigmatized with dishonor the voluntary disclosure of such confidences. It is not, then, surprising that we should felicitate ourselves in this hour of our triumph, vindication of the honor or our profession, and legalization of the confidenfial relation of the profession with the people at large, in whose interest and for whose protection this statute has been enacted. It is the assertion of one of the highest prerogatives of the medical profession and the reassurance of its fidelity to the sacred obligation of inviolability of professional confidence.

At the meeting held January 22, 1896, this Society adopted a series of propositions relating to the sanitation of this city, setting forth the necessity of extension and purification of the water supply, extension and completion of a system of foul water and sewage disposal, and compulsory connection of habitable and inhabited houses with such systems of water supply and sewerage. At the same time it charged the Committee on Legislation with the duty of presenting these propositions to Congress and urging the necessary legislation. Of these propositions, one has become a law, and the one that most directly challenges the prejudice and antagonism of the unfortunate, poorer, and unhygienic classes of the population, and the only one that charges its cost upon the lot-holders, and holds the owner responsible for its execution. As a purely sanitary measure the compulsory connection of habitable and inhabited houses with the systems of water supply and sewers is, perhaps, most important in promoting the hygiene of person and dwelling, and in the prevention of soil pollution, because of the consequent abolishment of privy boxes, cesspools, and other makeshifts for the collection of human excreta. We also have reason to believe that the facts and arguments presented to the respective congressional committees carried sufficient weight to secure fair appropriations, and have thus enabled the Commissioners to provide for the extension of suburban sewers, and supply the residents of Brightwood and Takoma with Potomac water. Surely, then, notwithstanding the failure of our effort in the aggregate, we have reason to congratulate ourselves and the people of the city upon the prospective improvement in the sanitation of the city and health of its residents. But our duty to the public will not be fully discharged until such additional legislation is secured as will complete the systems of pure water supply, and for the ultimate disposal of sewerage.

I will not disguise the pride I take in adding these enactments to the record of reforms inaugurated during my incumbency of the Presidency of this Society, nor conceal the pleasure it gives me to realize the fulfilment, though incomplete, of our duty in conservation of the health, well-being and happiness of this people. Much remains to be done. The education of the general public in sanitation is a slow and tedious process, but the profession must continue to lead and direct popular opinion in all matters pertaining to the knowledge and advancement of sanitary science and preventive medicine.

So much for the legislative reforms. The history of this epochal year will, however, be incomplete without special reference to the resumption of the systematic publication of the transactions of the Society. This publication contemplates the record in a permanent form, accessible to our successors and to the profession at large, of the scientific work of its members, and, thereby, the elevation of the standing and the establishment of the reputation of the Society upon the highest plane of scientific and clinical medicine. I have, on a former occasion, expressed the opinion that the work of the members of this Society will compare favorably with that of any medical organization in this country. I am assured now that it will attain and maintain the position to which it is entitled, which will redound to the honor of its membership.

The present plan and arrangement may be incomplete in some of its details, but it will contribute to the permanent establishment and enlarged usefulness of a local medical journal in some measure under the control of the committee of editors—a desideratum second only in importance to the permanent preservation of the transactions of the Society, and alike contributory to the fulfilment of the charter declaration to promote and disseminate medical and surgical knowledge. Mark you the significance of the provision of the charter that authorizes and directs the body corporate "to alien, sell, transfer or lease" any property or securities acquired by "gift, bargain, sale, or demise" and apply the proceeds thereof to such purposes as it may judge most conducive to the "promoting and disseminating medical and surgical knowledge, and for no other purpose whatsoever."

The repealing section of the Medical Practice Act eliminates from the charter every franchise of object and purpose except the duty of "promoting and disseminating medical and surgical knowledge" in such manner as the Society "may adjudge most conducive." The scheme and plan of publication adopted, if not adequate to the complete discharge of such duty, is an effort in that direction, which can be perfected as experience may indicate its defects and insufficiencies. It may not be the only method, but it is one that will disseminate medical and surgical knowledge. For many years this Society has restricted its scientific work to such consideration within closed doors. Now it has emphasized the beginning of a new era by the extension of its advantages to others than those who may regularly attend its weekly meetings. Every practitioner of medicine must know that the present progress of scientific medicine throughout the civilized world is due mainly to the widespread dissemination of discovery and knowledge through the mediums of medical journals and medical society publications; and it is equally true that every such publication has, in some measure, contributed to the diffusion of useful knowledge. It must, then, follow that this Society can only and completely discharge its duty to the profession at large and to mankind in general by the record and publication of its scientific work. The clinical demonstration of the value and utility of a discovery is not less important than the discovery. The multiplication of clinical results obtained by different investigators in separate localities, regions and countries is the only crucial and conclusive test of the value, utility and application of new facts, improved methods and progress. If the transactions of the Society were limited to original thought and investigation and discovery, research would continue without verification, and recorded clinical observation and experience and experimental attestation, would be eliminated from the educational facilities of organized effort. In 1889 a physician published the unsuccessful results of experimental sponge grafting in the orbit of a rabbit. In 1896 a member of this Society presented the history and partially successful result of experimental sponge grafting in the human orbit. The conception was original with each experimenter, the latter not knowing of the failure of the first. Without publication of the failure of one and success of the other, either result might have been accepted as final; but with all the facts and data open to all, the priority of failure or success will be determined by the clinical observation and experience of careful, painstaking and competent observers who may have preceded or will follow in the same line of investigation. Such is the rule and conduct of medical workers to discover facts or to co-ordinate them into laws. Facts in medical science and practice can only be established by concurrent investigation, observation and verification by competent experts. Specialism in medicine owes its marvellous progress and popularity to concentration of effort and systematic publication. General practice owes its decadence to desultory diffuseness of thought, waste of opportunity, and complaisant disregard of progressive methods. The attempt now being made to build upon the ruins of its decay the specialism of internal medicine cannot find a region of the human body that has not been invaded by an aggressive if not a rapacious specialism.

Medical society organization and consideration, with its conflict of judgment and experience, is an active and effective instrumentality in the correction of mistake, fallacy, misconception and misapplication. All these averments lead up to and emphasize the postulate that the systematic record and publication of the scientific work of a medical society is an imperative duty to itself and to the profession at large, and a potential auxiliary to the acquisition, promotion and dissemination of medical and surgical knowledge. Then' let it be our pride, as it is our duty, to make our transactions such a repository of scientific and clinical knowledge as will reflect honor and distinction upon its membesship.

In evidence and vindication of the leadership of this Society in the promotion of sanitary reforms, I invite your attention to an important movement, which originated with this Society, now attracting the active efforts and co-operation of other organizations, high officials and many private citizens.

In the valuable report of your Committee on Public Health, submitted on January 23, 1896, and given to the public through the local press, and Health Reports of March 6, 1896, the committee sets forth the necessity of reclamation of the Anacostia river flats, accompanied with the testimony collected from every available source of information, conclusive in support of its contention that the continued and increasing prevalence of malarial diseases, especially in the eastern part of the city, at the Marine Barracks, Navy Yard, St. Elizabeth's Insane Asylum, and throughout that portion of the District in suburban proximity thereto, found its cause in the emanations from the marshes and swamps, with their annually increasing accumulations of sewage, along the course of this river.

At a meeting of the Washington Board of Trade held February 25, 1896, the following preamble and resolution, reported by its Committee on Public Health, were unanimously adopted:

"Whereas tne enormous and constantly increasing area of marsh along the eastern border of the city is a constant menace to the health of the residents of the eastern section of the city, and especially so to the inmates of the almshouse and hospital, St. Elizabeth's Asylum and Army and Naval forces, officials and employees, at the Marine Barracks and Navy Yard: therefore,

"*Be it Resolved*, That the reclamation of these marshes is imperatively demanded, and should be accomplished without unnecessary delay."

This recommendation is renewed and emphasized in the last annual report (November 9, 1896) of the same committee, now pending before the Board of Trade. The prospect of its accomplishment has been greatly enhanced by the recent concerted co-operation of high officials, military medical corps, and many public-spirited citizens.

These circumstances are cited to add additional data to the train of indisputable facts in the history of medicine going to show that the progress of sanitary science and reforms, here as elsewhere, throughout all times past, is due exclusively to the profession, which is the only occupation or employment of mankind that has filled the measure of its philantrophy with efforts to limit its emolument to such only as may be derived from the unavoidable ailments "to which flesh is heir," and here, as everywhere, has been confronted at every stage of progress by vicious incredulity, inhumanity that has made "countless thousand mourn," parsimony and cupidity.

This Society is not concerned in the selection of a site for a Hospital for Contagious Diseases, but it is profoundly impressed with the need of such an institution, and has, by a unanimous vote, declared its establishment to be an imperative necessity. It would be recreant to the ordinary dictates of humanity to stand idly by whilst the daily press is teeming with the details of cruel neglect that exposes every susceptible person to the contagion of preventable diseases, because there is no institution in which the victims can be properly isolated and receive medical treatment, but sick, destitute and exhausted with disease, must walk the streets, diffusing broadcast the poison of loathsome diseases, in search of that relief which is denied by a civilized and Christian community.

The records of the Health Office show there were in this city, between the first of November and December 13, 164 dwellings and four institutions invaded by diphtheria, and twenty-five by scarlet fever. In other words, there were 189 private pest-houses in this city during the brief period of forty-three days, each one of which was a focus for the dissemination of the poisons, more dangerous than a properly constructed and managed contagious disease hospital, because of the more complete isolation of the victims, quarantine of the necessary attendants, and disinfection than can be secured in any private dwelling by any system of requirements as yet devised. It does not appear that any owner of real estate or speculator in future values has suggested a depreciation of the commercial value of any one of these 189 private contagious disease hospitals, or of any private dwellings in proximity.

To this simple statement of a fact let me add another, perhaps more conclusive in evidence of the immediate and imperative necessity of such an institution. Some persons, especially among the poor and working class, who depend upon their daily earnings for a meagre livelihood, conceal the presence of these diseases, sometimes until the death of the patient exposes its existence, because of the necessary quarantine regulations, which warn visitors and employers of the danger. These people associate with domestics, go about from house to house to do odd chores, take in washing and engage in a great variety of menial employments to earn a scanty mess of victuals, and thus convey the poison of the diseases from their squalid pest-houses to the habitations of their almoners. All this because there is no institution to which to remove and isolate the victims of these preventable diseases, that the infected tenements may be disinfected and the hungry occupants released from quarantine.

If these facts, susceptible of daily practical demonstration, are not sufficient, then I know not what will arouse a civilized and Christian community to the full realization of the danger and inhumanity of its insensate fears pertaining to the location, which have so long delayed the establishment of the institution.

The record of the epoch year sets forth with unmistakable significance the power and force of a united profession, and emphasizes its unquestionable right to assert itself in all matters pertaining to the elevation and advancement of a beneficent and life-saving science, and to the promotion of the welfare, health and longevity of the people. Through all times and among all civilized peoples the profession of medicine has taken the lead in all such reforms, and whenever and wherever it has asserted the force and activity of united action, success has crowned its efforts. Ghouls, harpies, vampires, inane critics and malevolent satirists have feasted upon the credulity of the ignorant in futile and venal struggles to obstruct and throttle progress. But scientific medicine—the handmaid of Religion and the benefactor of the human race—has steadily advanced along the path that leads to its high goal, neither swayed by the formalities of society nor dismayed by the convulsions of popular sentiment, and now commands the respect and homage of the civilized world. Rancor, jealousy and dissension have, in times past, so completely dissipated effort and influence that the profession as a body well nigh, for the time being, slunk into an occupation for individual gain and emolument and personal aggrandizement, inciting ridicule, popular prejudice and widespread skepticism. Happily, a new era dawned in the universal demand for a higher standard of education and qualification, and more general and vigorous enforcemeut of the precepts of a conscientious and qualified discharge of the duties and responsibilities of a beneficent and life-saving science.

Scientific medicine must fail in its mission of humanity and beneficence in so far as it falls short of asserting the inalienable right to lead, direct, control and dominate popular ignorance, prejudice and cupidity, to the end that legislators and all others in authority must come to know its force and power in all things pertaining to the advancement of sanitary science and preventive medicine. The art of healing cannot be dissociated from the science of prevention. The eradication of preventable diseases is the highest aim of medical and biological science, and to that end research must go on, untrammeled by authority and free from the restraints of malevolent skepticism.

Preventive mediciee is unattended with suffering, has no mortality, and, consequently, no funeral corteges, no cemeteries decorated with memorials of the *untimely* dead, no grave-diggers to house and haunt the innocent dead until doomsday, no desolated homes to revive the memory and intensify the sorrow of avoidable affliction. If death must come, and come it surely will, let it come through waste, decay and age, and not to the innocent in token of that neglect and inhumanity from which science offers escape through medical and biological investigation and experimentation.

Philantrophy is not the only aim of experimental research. The discoveries of the Bureau of Animal Industry, in the diagnosis, prevention and cure of the diseases of food and other animals, have added millions to the value of stock-raising and commercial interests, in some States saving such industries from partial, if not total, destruction. The farming interests are not less concerned in such experimentation than the sick man and stricken child. Every barn-yard and pasture field, and every farm-house throughout the land, have reaped, in some measure, the beneficent results of such research.

The education and betterment of the people at large in sanitation is not less humane than the healing of the sick. During the past three years this Society has made creditable progress in this department of medical policy, in that it has asserted its right, privilege and duty to seek and promote such legislation as would conduce to the advancement of scientific medicine, and to the welfare of this community; and now, in the closing hour of this session, it has the proud satisfaction of summing up the results of its efforts to widen the scope of its activities in the interest of and for the good of the people.